

ACKNOWLEDGEMENT

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And lastly but most importantly, I thank you, the students who are using these books to prepare for putting your trust in us. I assure, we at Crack Every Test will do everything in our power to give you the best guidance and will work hard to build your future.

- Jigar Parekh
Founder, Crack Every Test
JBIMS,22

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CIRCULAR ARRANGEMENTS

Exercise – 1

Directions (1–5): Study the table carefully and answer the questions given below.

Eight persons – Mona, Moti, Meera, Mali, Mitra, Mansi, Megha and Mrig, were sitting in a circle facing towards the center. Each of them was born in a different city — Shimla, Manali, Agra, Nanital, Pune, Goa, Mumbai and Delhi, but not necessarily in the same order. Two persons were sitting between the one, who was born in Nanital and Mitra. Mona was born in Shimla and sits opposite to Mitra. The one, who was born in Pune, sits opposite to Mali. Mrig was born in Mumbai and sits second to the right of the one, who was born in Nanital. Meera was born in Pune and was an immediate neighbor of the one, who was born in Goa. Megha sits third right to Moti. Mali was born in Nanital. The one, who was born in Delhi, sits adjacent to the one, who was born in Nanital. Mitra was born in Manali and Megha was born in Delhi.

- Mansi was born in which of the following cities?
 A. Agra
 B. Mumbai
 C. Delhi
 D. Goa
 E. None of these
- Who among the following was sitting third to the right of Megha?
 A. Mitra
 B. Meera
 C. Moti
 D. Mona
 E. None of these
- Who among the following was born in Agra?
 A. Moti
 B. Mansi
 C. Megha
 D. Mrig
 E. None of these
- Who among the following was sitting in the front of Moti?
 A. The one who was born in Manali
 B. Meera
 C. The one who was born in Mumbai
 D. Mitra
 E. Both option A and D
- What is the position of Meera with respect to the one who was born in Shimla?
 A. Second to the right
 B. Third to the right
 C. Fourth to the left
 D. Second to the left
 E. None of these

Directions (6–10): Study the table carefully and answer the questions given below.

Eight students A, B, C, D, E, F, G and H are sitting around a circular table for playing a game. Four of them A, B, E and F are not facing the center. D is third to the left of H, who is fourth to the right of E. A is third to the right of B, who is third to the left of D. F is second to the left of C.

- How many persons sit between A and B (if the counting start from B in CW direction)?
 A. None
 B. One
 C. Two
 D. Three Other than given option
 E. None of these
- Who among the following sits third to the left of E?
 A. G
 B. A
 C. H
 D. D
 E. B
- What is the position of G with respect to F?
 A. Third to the right
 B. Third to the left
 C. Second to the right
 D. Cannot be determined
 E. Other than given options
- Who among the following is the neighbor of F and C?
 A. E
 B. H
 C. A
 D. B
 E. Other than given options
- Four of the following five are alike in a certain way and hence form a group. Find the one that does not belong to that group.
 A. EC
 B. AG
 C. DE
 D. HA
 E. FB

Directions (11–15): Study the table carefully and answer the questions given below.

Crack Every Test students Varun, Udit and Tushar are seated in a circle facing the center. Akash, Bharti and Chirag are also seated in the same circle but two of them are not facing the center (facing opposite direction of the center.) Varun is second to the left of Chirag. Udit is second to the right of



Akash, Bharti is third to the left of Tushar. Chirag is second to the right of Tushar. Akash is seated next to Varun.

11. Which of the following are not facing the center?
 - A. Bharti-Akash
 - B. Chirag-Akash
 - C. Bharti-Chirag
 - D. Cannot be determined
 - E. None of these
12. Which of the following is Tushar's Position with respect to Bharti?
 - A. Third to the right
 - B. Second to the right
 - C. Third to the left
 - D. Third either to the right or to the left
 - E. None of these
13. Which of the following is Varun's position with respect to Chirag?
 - A. Second to the right
 - B. Third to the left
 - C. Fourth to the right
 - D. Fourth to the left
 - E. Cannot be determined
14. Which of the following is true regarding the seating arrangement?
 - A. Akash, Bharti and Chirag are seated adjacent
 - B. Varun, Udit and Tushar are seated adjacent
 - C. There are two persons whose seating arrangement cannot be ascertained
 - D. Those who are not facing the center are seated adjacent
 - E. There are only two persons seated between Varun and Tushar
15. Which of the following is Akash's position with respect to Udit?
 - A. Second to the left
 - B. Second to the right
 - C. Third to the right
 - D. Cannot be determined
 - E. None of these

Directions (16-20): Study the table carefully and answer the questions given below.

Six persons- I, J, K, L, M, and N are sitting on the circular table facing the center. They are using different types of bags- Birkin, Kelly, Clutch, Saddle, Duffel, and Hobo but not necessarily in the same order. L sits second to the left of the

one who uses Hobo bags. The one who uses Hobo bags and the one who uses Clutch bags are immediate neighbors. J sits opposite to the one who sits immediate right of I. J neither uses Hobo nor Clutch. The one who uses Birkin sits second to the left of I. The one who uses Saddle sits immediate left of the one who uses Duffel. L neither uses Duffel nor Kelly. Either J or M uses Kelly. N does not use Clutch.

16. Who among of the following person sits immediate right of I?
 - A. The one who uses Birkin
 - B. The one who sits second right of K
 - C. The one who sits immediate left of L
 - D. The one who uses Hobo
 - E. K
17. Which of the following bag does K use?
 - A. Clutch
 - B. Hobo
 - C. Duffel
 - D. Kelly
 - E. Saddle
18. Which of the following combination is true?
 - A. N- Clutch
 - B. K- Kelly
 - C. J- Birkin
 - D. M- Saddle
 - E. I- Hobo
19. Which of the following statement is true?
 - I) M sits second to the left of the one who uses Saddle
 - II) K sits immediate right of I
 - III) I uses Duffel
 - A. Only II
 - B. Only I and III
 - C. Only III
 - D. All I, II, and III
 - E. None of these
20. Who among the following person uses Hobo bag?
 - A. The one who sits immediate left of L
 - B. The one who sits second to the right of M
 - C. K
 - D. The one who sits third to the right of I
 - E. N

Directions (21-25): Study the table carefully and answer the questions given below.

Eight persons – P, Q, R, S, T, U, V, and W are sitting at a circular table and facing inside. Each person likes different numbers viz.- 8, 13, 15, 19, 22, 24, 31, and 32. All the information is not necessarily in the same order. The consecutive alphabetically named persons are not sitting together. S sits third to the right of Q, who likes 15. One person sits between the one who likes 15 and P. The person sitting third to the right of P sits second



to the left of the one who likes 24. T sits immediate right of the one who likes 19. The one who likes 19 sits facing U, who likes 22. R likes a number which is 4 more than the number liked by Q and sits second to the left of W. W sits facing the one who likes a number which is 5 less than the number liked by T. V likes a prime number.

21. What is the position of T with respect to the one who likes 31?
 - A. Immediate left
 - B. Second to the right
 - C. Third to the left
 - D. Immediate right
 - E. None of these
22. Who among the following person likes 24?
 - A. The one who sits second to the left of U
 - B. S
 - C. The one who sits third to the right of T
 - D. P
 - E. None of these
23. How many persons are sitting between V and the one who likes 32 when counted to the left of V?
 - A. As many persons are sitting between Q and R when counted from the left of R
 - B. Three
 - C. Four
 - D. As many persons are sitting between R and the one who likes 24 when counted from the right of R
 - E. None of these
24. If S is related to the one who likes 13, similarly R is related to the one who likes 15, then who among the following person is related to the one who likes 22?
 - A. S
 - B. The one who sits immediate right of R
 - C. V
 - D. The one who likes 32
 - E. None of these
25. Which of the following statement is/are not true?
 - A. The one likes 32 sits immediate right of S
 - B. Two persons are sitting between W and V when counted from the right of V
 - C. R likes 19
 - D. U sits immediate right of Q
 - E. None of these

Directions (26–30): Study the table carefully and answer the questions given below.

Eight persons– S, T, U, V, W, X, Y, and Z are standing on the circular table facing the center. All the information is not necessarily in the same order. S stands second to the left of X. W stands adjacent to neither S nor X. Y stands to the immediate right of W. Z stands second to the left of V. V and W are not immediate neighbors. The number of persons stands between X and V is the same as the number of persons stands between V and T. U stands adjacent to neither W nor Z.

26. What is the position of S with respect to V?
 - A. Immediate left
 - B. Immediate right
 - C. Third to the left
 - D. Third to the right
 - E. Second to the left
27. Who among the following person stands between T and S when counted to the right of S?
 - I. The one who stands immediate left of X
 - II. The one who stands opposite to Z
 - III. The one who stands second to the right of U
 - IV. W
 - A. Only II and IV
 - B. Only I and III
 - C. Only III and IV
 - D. Only I and II
 - E. None of these
28. Four of the five among the following are similar in such a way to form a group, who among the following doesn't belong to the group?
 - A. UV
 - B. WZ
 - C. TS
 - D. YX
 - E. WV
29. If all the persons are arranged in alphabetical order from S in an anti-clockwise then how many persons remain unchanged in their position (excluding S)?
 - A. Three
 - B. Two
 - C. Four
 - D. One
 - E. No one
30. Who among the following person stands third to the left of Y?
 - A. Z
 - B. The one who stands immediate left of W
 - C. The one who stands immediate right of X
 - D. The one who stands opposite to S
 - E. S



Directions (31-35): Study the table carefully and answer the questions given below.

Nine persons – B, C, D, E, F, G, H, I, and J are sitting around a circular table in such a way that some are facing the center whereas some are facing away from the center. The consecutive alphabetically named persons are not sitting together. Not more than two persons facing the same direction are sitting together. G sits third to the left of E, and vice versa. E sits second to the left of H. J sits third to the left of C, who sits facing away from the center. G is not an immediate neighbour of both J and C. B sits immediate right of I, E's neighbour, and vice versa. Neither G nor D sits adjacent to I. F, who faces outside, sits fourth to the left of B. J and I are not facing the same direction. Immediate neighbors of G are facing in the opposite direction.

31. What is the position of H with respect to D?
 - A. Fourth to the left
 - B. Second to the left
 - C. Third to the right
 - D. Immediate left
 - E. None of these
32. Who among the following person sits second to the left of I?
 - A. The one who sits second to the right of F
 - B. H
 - C. The one who sits immediate left of B
 - D. D
 - E. None of these
33. How many persons are sitting between B and J when counted to the right of J?
 - A. As many persons sit between C and the one who sits immediate left of G when counted to the right of C.
 - B. Four
 - C. As many persons sit between C and F
 - D. Five
 - E. None of these
34. Four of the following five are alike in a certain way as per the given arrangement and thus form a group. Find the one that does not belong to that group?
 - A. The one who sits third to the right of E
 - B. D
 - C. The one who sits immediate left of C
 - D. The one who sits second to the left of G
 - E. C

35. Which of the following statement is not true?
 - A. F sits third to the right of G
 - B. C sits immediate left of I
 - C. D and G are sitting together
 - D. J sits fourth to the right of the one who sits immediate right of C
 - E. All the above statements are true

Directions (36-40): Study the table carefully and answer the questions given below.

Nine persons – P, Q, R, S, T, U, V, W, and X are sitting around a circular table facing the center. Each person likes different numbers viz.- 12, 13, 15, 16, 17, 18, 21, 25, and 28. All the given information is not necessary in the same order. Note: The consecutive alphabetically named persons are not sitting together. T sits three places away from the one who sits immediate right of V. The one who likes 18 sits third to the left of T. W likes the number which is six less than X and sits fourth to the right of S, who likes 28. Both W and X sit adjacent to neither T nor P. X sits third to the right of P, who likes a number which is three less than W. V likes the number which is four more than the one who sits second to the right of U. The number of persons sitting between U and X is the same as the number of persons sitting between the one who likes 13 and P, when counted from the left of both P and U. Q likes a number which is a multiple of 5.

36. What is the position of Q with respect to the one who likes 17?
 - A. Fourth to the left
 - B. Second to the right
 - C. Third to the right
 - D. Immediate left
 - E. None of these
37. Who among the following person sits second to the right of the one who sits fifth to the left of W?
 - A. U
 - B. The one who likes 21
 - C. The one who sits immediate left of T
 - D. The one who likes 15
 - E. None of these
38. How many persons are sitting between the one who likes 13 and Q when counted from the right of Q?
 - A. As many persons are sitting between V and the one who likes 25 when counted from the right of V
 - B. Four



- C. As many persons are sitting between T and the one who likes 15 when counted from the left of T
- D. Either A or C
- E. None of these
39. Who among the following person likes 16?
- A. The one who sits second to the left of V
- B. U
- C. The one who sits immediate right of R
- D. Both A and C
- E. None of these
40. Which of the following statement(s) is/are not true?
- A. U sits third to the right of S
- B. V likes 17
- C. At least three persons are sitting between R and X
- D. X sits second to the right of V
- E. All the above statements are true

Directions (41-45): Study the table carefully and answer the questions given below.

- i) There are 8 friends A, B, C, D, E, F, G, H seated in a circle facing the center.
- ii) AC, DG, HE and FB are seated adjacent to each other. A is also seated adjacent to H.
- iii) B is 2nd to the right of H.
- iv) E is 3rd to the right of C.

41. Who is 2nd to the left of A?
- A. D
- B. G
- C. F
- D. Cannot be determined
- E. None of these
42. Who is 3rd to the left of C?
- A. G
- B. D
- C. B
- D. Cannot be determined
- E. None of these
43. What is C's position with reference to E?
- A. 5th to the right
- B. 4th to the left
- C. 4th to the right
- D. 3rd to the right
- E. Cannot be determined
44. Who is 2nd to the right of A?
- A. B

- B. E
- C. F
- D. Cannot be determined
- E. None of these
45. Who among the following pairs may not be seated adjacent to each other?
- A. AH
- B. DC
- C. EB
- D. Cannot be determined
- E. None of these



Directions (46 – 50): Study the table carefully and answer the questions given below.

Eight musical instruments viz. Cello, Drum, Flute, Guitar, Harp, Oboe, Piano and Violin are placed in a square room such that four instruments are placed at the corners of the room and faces outside while four instruments are placed at the middle of the sides and faces inside, but not necessarily in the same order. Harp was placed third to the right of Guitar. Violin was placed at one of the corners but neither adjacent to Harp nor Guitar. The number of instruments between Harp and Violin is the same as the number of instruments between Violin and Oboe, when counted from the left of Harp and right of Oboe. Drum was placed adjacent to Oboe. Cello was placed second to the right of Flute, which was not placed adjacent to Piano.

46. If Drum is related to Cello and Piano is related to Flute in a certain way, then which of the following instrument is related to Harp?
 - A. Oboe
 - B. Guitar
 - C. Drum
 - D. Violin
 - E. None of these
47. Which of the following statement is true with respect to the final arrangement?
 - A. Two instruments are placed between Violin and Guitar
 - B. Both Drum and Flute faces the same direction
 - C. Oboe was placed second to the left of Harp
 - D. Neither Cello nor harp is adjacent to Piano
 - E. None of these are true
48. Which of the following instrument was placed to the immediate left of Harp?
 - A. Cello
 - B. Flute
 - C. Piano
 - D. Drum
 - E. None of these
49. What is the position of Oboe with respect to Violin?
 - A. Third to the right
 - B. Third to the left
 - C. Second to the right
 - D. Second to the left
 - E. None of these
50. How many instruments were placed between Flute and Drum, when counted from the right of Flute?
 - A. One
 - B. Two
 - C. Three
 - D. More than three
 - E. None

Directions (51-55): Study the table carefully and answer the questions given below.

Nine Persons- P, Q, R, S, T, U, V, W, and X are sitting around the triangular-shaped table. Such that one person sits in each corner of the table facing outside and two persons sit in the middle of each side of the table facing the center. All the information is not necessarily in the same order. P sits second to the right of U and vice versa. Only two persons are sitting between P and R. R is facing towards the center of the table. W sits fourth to the right of R. W and Q are facing the same direction. Q is sitting adjacent to neither R nor P. X sits second to the right of S and doesn't sit adjacent to R. T and P do not sit together. S is facing the same direction of neither P nor T.

51. Which of the following pair of persons are facing opposite directions?
 - A. VS
 - B. QX
 - C. TU
 - D. PW
 - E. RQ
52. Who among the following person sits second to the right of V?
 - A. Q
 - B. X
 - C. The one who sits second to the left of U.
 - D. The one who sits immediate left of S
 - E. All the above
53. What is the position of V with respect to X?
 - A. Immediate right
 - B. Third to the right
 - C. Fourth to the left
 - D. Third to the left
 - E. Immediate left
54. Who among the following person sits exactly between Q and U when counted from the left of Q?
 - A. The one who sits immediate left of T
 - B. R
 - C. S
 - D. The one who sits second to the right of W
 - E. None of the above
55. Which of the following pair of persons are immediate neighbors?
 - I. PU
 - II. RV
 - III. QS
 - A. Only I
 - B. Only II and III
 - C. Only III
 - D. All I, II, and III



E. None of these

Directions (56-60): Study the table carefully and answer the questions given below.

Nine persons- L, M, N, O, P, Q, R, S and T are sitting around the triangular table but not necessarily in the same order. Two persons sit in each side of the table and one person sits in each corner of the table. The persons who sit in the corner are facing the outside of the table and the persons who sit in the middle of the table are facing the center. The consecutive alphabetically named persons are not sitting together. N sits second to the left of T. Only two persons sit between T and S. S sits immediate left of Q, vice versa. Not more than one person sits between T and Q when counted from the right of Q. M sits second to the left of P, vice versa. The number of persons sits between M and S is the same as the number of persons sits between N and L when counted from the right of M and left of N respectively. The number of persons sits between O and Q is the same as the number of persons sits between R and O.

56. If all the persons are sitting in an alphabetical order from L in a clockwise direction, then how many persons are unchanged in their position (excluding L)?
- A. Two
B. Three
C. One
D. No one
E. Four
57. If O is related to S and M is related to T in a certain way. Then who among the following is related to R?
- A. N
B. P
C. The one who sits to the immediate right of L
D. The one who sits to the immediate left of Q
E. L
58. Which of the following pair of persons are immediate neighbors?
- I. LQ
II. TM
III. PN
IV. RO
- A. Only II and III
B. Only I and IV
C. Only III and IV
D. Only II and IV
E. Only I and III
59. What is the position of L with respect to N?
- A. Second to the left
B. Second to the Right

- C. Third to the right
D. Fourth to the right
E. Immediate left

60. Who among the following person sits in the corner of the table?
- A. N
B. The one who sits to the immediate right of S
C. The one who sits second to the left of T
D. R
E. L

Directions (61-65): Study the table carefully and answer the questions given below.

Twelve persons viz. O, P, Q, R, S, T, U, V, W, X, Y and Z are sitting around a rectangular table such that all of them are facing towards the center, but not necessarily in the same order. Four persons sit at the corners and two persons sit at each side of the rectangular table. U sits third to the right of S, who sits at one of the corners. X sits facing towards one of the U's neighbors. Three persons sit between P and X. R sits second to the right of V, who sits facing towards P. R sits facing towards one of the neighbors of W. Q sits to the immediate left of T. Y sits third to the right of Z and faces towards O.

61. Who among the following person sits second to the right of Z?
- A. U
B. P
C. The one who sits facing towards P
D. Q
E. None of These
62. Who among the following person sits to the immediate left of O?
- A. Q
B. The one who sits third to the right of R
C. P
D. The one who sits second to the right of V
E. None of These
63. How many persons sit between X and S, when counted from the right of X?
- A. Five
B. No one
C. One
D. Two
E. Four
64. As many persons sit between S and ___ as between S and ___?
- A. T, U
B. Z, W



C. P, O D. X, R

E. None of These

65. Four of the following five are alike in a certain way and hence form a group. Find the one that does not belong to that group.

A. S B. R

C. T D. V

E. U

Directions (66-70): Study the table carefully and answer the questions given below.

Eight persons A, B, C, D, E, F, G, and H are sitting around a rectangular table. Four of them are sitting at the corners while others are sitting on the longer side (Two on each side) of the table. All of them are facing outside the table. C is sitting on the longer side. G is sitting 2nd to the left of C. Two persons are sitting between G and F who is sitting at the corner of the table. One person is sitting between B and H but neither B nor H is an immediate neighbor of G. A is sitting 3rd to the right of H but doesn't sit adjacent to C. D is not an immediate neighbor of C.

66. How many persons sit between B and F when counted from the right side of F?

A. Three B. Two

C. Five D. One

E. None

67. What is the position of H with respect to D?

A. 2nd to the left

B. Immediate right

C. Immediate left

D. 3rd to the right

E. 5th to the left

68. Four of the following five are alike in a certain way and form a group. Find the one which doesn't belong to the group?

A. B

B. Person who sits immediate left of F

C. Person who sits 2nd to the left of A

D. H

E. Person who sits exactly between C and G

69. Which of the following is definitely a true statement?

A. D is an immediate neighbor of A

B. F sits 2nd to the right of D

C. H sits at the side of the table

D. G sits opposite to A

E. A is an immediate neighbor of B

70. Who sits 2nd to the right of the one who sits immediate right of B?

A. C

B. B

C. The one who sits immediate left of H

D. The one who sits immediate right of G

E. H

Directions (71-75): Study the table carefully and answer the questions given below.

Eight persons - F, G, H, I, J, K, L, and M are sitting on the rectangular table such that all of them are facing towards the center but not necessarily in the same order. One person is sitting on each smaller side whereas three persons are sitting on each longer side of the table. F sits third to the left of I, who does not sit on the longer side of the table. Only one person sits between F and G. Both K and I are immediate neighbors. J sits third to the right of K. The number of persons sitting between I and G is the same as the number of persons sitting between G and M. Both L and H are immediate neighbors. L does not face M.

71. Who among the following person sits third to the left of M?

A. K

B. The one who sits second to the left of G

C. I

D. The one who sits to the immediate right of H

E. None of these

72. How many persons sit between M and J, when counted from the left of M?

A. One

B. Two

C. Three

D. None

E. More than three

73. Which of the following statement is/are true with respect to the final arrangement?

A. Both H and G are sitting exactly opposite to each other

B. Only one person sits between G and L

C. M sits third to the left of K

D. Both F and K are immediate neighbors

E. All are true

74. Who among the following person sits on the longer side of the table?

I. H

II. The one who sits to the immediate left of K

III. F



IV. The one who sits second to the left of M

- A. Only II and IV
- B. Only I and III
- C. Only III and IV
- D. All I, II, III and IV
- E. Only I and II

75. Four of the following five are alike in a certain way and hence form a group. Find the one which does not belong to that group?

- A. FG
- B. IH
- C. KL
- D. JI
- E. LF

Directions (76-80): Study the table carefully and answer the questions given below.

There are eight persons A, B, C, D, E, F, G and H are sitting around a circular table facing to the center. They all purchased different items i.e. shoes, belt, wallet, jeans, trousers, shirts, cap and tie but not necessarily in the same order.

F sits third to right of A. C sits second to the left of D. D is not an immediate neighbor of A and F. D is neighbor of the one who purchased Shoes. There are three persons sit between A and the one who purchased Cap. A, F and also their neighbors have not purchased Belt. Only one person sit between the one who purchased Shoes and B. A purchased Tie. The one who purchased Wallet and Jeans are immediate neighbors. F has neither purchased Wallet nor Jeans. Only one person sit between H and the one who purchased Trouser. H do not purchased Belt and Wallet. The one who purchased Trouser sit opposite to F. G sits to immediate right of E and purchased Wallet.

76. What is the position of C with respect to one who buys shoes?
- A. third to right
 - B. second to left
 - C. third to left
 - D. Immediate left
 - E. Cannot be determined
77. What is the position of F with respect to E?
- A. second to right
 - B. immediate left
 - C. third to right
 - D. second to left
 - E. immediate right
78. Who sits immediate left of H?
- A. D
 - B. C

- C. G
- D. B
- E. E

79. Who sits third to the left of one who buys wallet?

- A. F
- B. B
- C. D
- D. A
- E. E

80. E is seated second to the left of whom?

- A. Trouser
- B. Wallet
- C. Shirt
- D. Shoes
- E. None of these

Directions (81-85): Study the table carefully and answer the questions given below.

There are eight friends A, B, C, D, E, F, G and H sitting around a circular table and all are facing towards the center. All friends belongs to different sector in Noida i.e. sector 11, sector 12, sector 13, sector 14, sector 15, sector 16, sector 17 and sector 18 but not necessarily in the same order. E is sitting third to the left of G. The person who is from sector 12 is to the immediate right of E and E is not from sector 11. B is sitting fourth to the right of H. H is not an immediate neighbor of G. Neither B nor H is an immediate neighbor of E. F is from sector 14 and is sitting third to the right of the person who from sector 12. The person from sector 16 is sitting second to the left of the person from sector 14. The person from sector 17 is sitting second to the left of E. A, who is from sector 13 is sitting exactly between F and H. The person from sector 15 is sitting second to the right of the person from sector 13. C is sitting third to the left of F.

81. What is the position of B with respect to H?
- A. third to right
 - B. second to left
 - C. third to left
 - D. fourth to right
 - E. Cannot be determined
82. What is the position of D with respect to one who belongs from sector 18?
- A. second to right
 - B. immediate left
 - C. third to right
 - D. second to left
 - E. immediate right
83. Who sits opposite to A?
- A. C
 - B. G
 - C. B
 - D. D
 - E. Cannot be determined



84. Who is sitting third to the left of one who belongs to sector 12?

- | | |
|------|------|
| A. D | B. A |
| C. H | D. G |
| E. B | |

85. B sits opposite to the one belongs from which sector?

- | | |
|--------------|--------------|
| A. Sector 12 | B. Sector 15 |
| C. Sector 17 | D. Sector 11 |
| E. Sector 14 | |

Directions (86–90): Study the table carefully and answer the questions given below.

There are eight persons J, K, L, M, N, O, P and Q sitting around a circular table and all are facing away from the center. All friends have different degrees i.e., B.Tech, MBA, Biotech, B.Pharma, LLB, B.Sc., MCA and BBA but not necessarily in the same order. J and L, who has Biotech degree, can never sit together. There are two persons sits between the persons who have MCA and LLB degree. The person who has LLB degree sits second to the right of O. Q has not MBA or B.Tech degree and he is also an immediate neighbor of one who has LLB degree. The person who has B.Tech degree cannot sit with the person who has B.Pharma degree. There are two persons sitting between L and the person who has B.Sc. degree. K and N are immediate neighbors of each other. The person who has B.Tech degree sits on the immediate left of the person who has BBA degree. J sits second to the right the person who has MCA degree. M has neither B.Sc. nor MCA degree. N and P are not immediate neighbors. P who has not LLB degree sits on the immediate right of Q. There is only one person sitting between those who has B.Sc. and BBA degree. There is only one person sitting between P and the person who has B.Sc. degree and that person can never be O.

86. Who sits to the immediate left of L?

- | | |
|------------------|------|
| A. M | B. O |
| C. K | D. J |
| E. None of these | |

87. Who sits second to the left of one who have MBA degree?

- | | |
|------------------|------|
| A. O | B. L |
| C. Q | D. M |
| E. None of these | |

88. N is sitting third to the left of whom?

- | | |
|------------------|--------|
| A. Biotech | B. MBA |
| C. MCA | D. LLB |
| E. None of these | |

89. Who is sitting second to the right of the one who has BBA degree?

- | | |
|------------------|------|
| A. O | B. J |
| C. M | D. L |
| E. None of these | |

90. How many persons sits between Q and J?

- | | |
|------------------|---------|
| A. One | B. Four |
| C. Three | D. Six |
| E. None of these | |

Directions (91–95): Study the table carefully and answer the questions given below.

There are eight friends A, B, C, D, E, F, G and H sitting around a circular table and four of them are facing the center and other four are facing away from the center. Each of them likes different brands of shoes i.e., red chief, HRX, Puma, Red tape, Adidas, Nike, rebook and UCB but not necessarily in the same order. E faces towards the center and likes red chief. Both the immediate neighbors of E faces away from the center and likes Puma and Red tape. D faces away from the center. Both the immediate neighbors of D do not faces away from the center. E sits third to the right of F, who likes Adidas. C sits third to the left of F. The one who likes Puma sits opposite to F. The one who likes HRX is not the immediate neighbor of F and faces away from the center. A sits second to the left of C and does not like Rebook and UCB. The one who likes Rebook sits between F and H. B faces away from the center and does not like HRX.

91. What is the position of A with respect to B?

- | | |
|-------------------------|--------------------|
| A. third to right | B. second to left |
| C. third to left | D. fourth to right |
| E. Cannot be determined | |

92. What is the position of H with respect to one who likes red chief?

- | | |
|--------------------|-------------------|
| A. second to right | B. immediate left |
| C. third to right | D. second to left |
| E. immediate right | |

93. Who likes HRX brand shoes?

- | | |
|------|------|
| A. A | B. D |
| C. G | D. B |
| E. E | |

94. Who sits second to the right of one who likes UCB brand shoes?

- | | |
|------|------|
| A. F | B. A |
| C. H | D. E |
| E. B | |



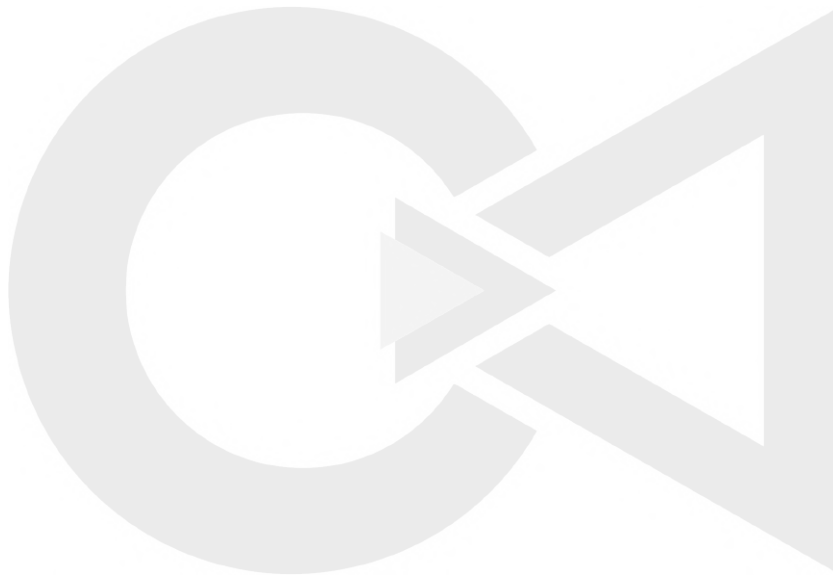
95. Who sits opposite to the one who likes Nike brand shoes?

A. F

B. C

C. E
E. G

D. B




Exercise – 2

Directions (1-5): Study the table carefully and answer the questions given below.

There are eight persons J, K, L, M, N, O, P and Q sitting around a circular table and all are facing towards the center but not necessarily in the same order. Each one of them likes different subjects i.e. History, Geography, English, Quant, Reasoning, GA, Politics and Economics but not necessarily in the same order. J sits third to the right of who likes Economics. Only two people sit between the person who likes economics and Q. The person who likes Reasoning and the geography are immediate neighbors of each other. Neither J nor Q likes Reasoning and Geography. The one who likes Reasoning is not an immediate neighbor of the person who likes economics. The person who likes History sits second to the left of N. N is not an immediate neighbor Q. The person who likes History is an immediate neighbor of both the persons who likes GA and Politics. The person who likes Politics sits third to the right of K. K does not like Reasoning. L sits to the immediate right of the person who likes English. J does not like English. O is not an immediate neighbor of J. P is not an immediate neighbor of the person who likes History.

- Who is to the immediate left of one who likes Economics?
 A. M
 B. P
 C. O
 D. J
 E. N
- Who sits second to the left of Q?
 A. N
 B. P
 C. J
 D. L
 E. None of these
- Who is sitting third to the left of one who likes Geography?
 A. O
 B. L
 C. P
 D. M
 E. None of these
- Who is sitting second to the right of L?
 A. J
 B. M
 C. K
 D. P
 E. None of these
- Who sits opposite to one who likes Politics?
 A. P
 B. L
 C. J
 D. M
 E. None of these

Directions (6-10): Study the table carefully and answer the questions given below.

A, B, C, D, E and F are six persons who have joined 6 different banks ICICI Bank, Axis Bank, Jammu Kashmir Bank, HDFC, Karnataka Bank, and Allahabad Bank by scoring different marks in the written exam of a maximum of 100 marks. (Marks are an integer value) They all are sitting around a circle facing the center with equal distance.

C is second to the right of the person who joined Karnataka Bank, who scored 69 marks which was the third lowest marks out of the 6 students. A is immediately to the left of the person who is opposite to the person who joined Allahabad Bank, who is not near to F. B scored the 2nd highest marks and did not join HDFC but is 2nd to the left of the person, who scored 74 marks. D is seated opposite to one who joined HDFC. D is not near to B. E has not scored the lowest marks. C is immediately to the left of the one who joined Allahabad Bank and C scored 70 marks. The person who joined Axis Bank is second to the left of the one who scored 72 marks. The person who joined ICICI did not score the highest marks. One of the six students scored which was a prime number. The lowest scored mark is 64.

- Who amongst the following is from ICICI?
 A. D
 B. E
 C. C
 D. A
 E. B
- Four of the following five are alike in a certain way based on the given seating arrangement and thus form a group, who is the one that does not belong to that group?
 A. A
 B. B
 C. C
 D. D
 E. E
- Who is seated between D and the person from Karnataka Bank When counted clockwise direction from D?
 A. E
 B. A
 C. C
 D. None
 E. D is from Karnataka Bank
- Which of the following is true regarding the given information?
 A. F is from Karnataka Bank and seated immediate right of the person who is opposite to the person who joined Jammu Kashmir Bank.



- B. A is from Axis Bank and scored 74 marks and is opposite to C
- C. E is from ICICI and is to the immediate right of B
- D. C scored 70 marks and is opposite to one who joined Jammu Kashmir Bank.
- E. The person from Jammu Kashmir Bank is seated opposite to one who scored 69.
10. Which of the following order of marks in descending order is true?
- A. $A > B > C > D > E > F$
- B. $A > B > C > F > E > D$
- C. $A > B > T > C > F > D$
- D. $A > B > C > E > F > D$
- E. $A > B > C > D > F > E$

Directions (11-15): Study the table carefully and answer the questions given below.

There are eight persons A, B, C, D, E, F, G and H are sitting around a circular table and all of them facing outside the center. They belong to different places i.e., Noida, Saket, Gurugram, Mayur Vihar, Ashok Nagar, Laxmi Nagar, GTB Nagar and Rajiv chowk E belongs to Mayur Vihar and sits opposite to D. A sits second to left of D. B belongs to Ashok Nagar and sits third to left of A. F sits second to left of B. C is not an immediate neighbor of A. H belongs to Rajiv chowk and sits second to the left of G. The one who belongs to Noida sits opposite to the one who belongs to GTB Nagar. The one who belongs to Noida sits second to the left of the one who belongs to Saket. F does not belong to Laxmi Nagar.

11. What is the position of D with respect to one who belongs to Rajiv chowk?
- A. third to right
- B. second to left
- C. third to left
- D. fourth to right
- E. Cannot be determined
12. What is the position of G with respect to one from Saket?
- A. second to right
- B. third to right
- C. immediate left
- D. second to left
- E. immediate right
13. Who sits third to the right of one who is from GTB Nagar?
- A. E
- B. G

- C. B
- D. D
- E. H
14. Who sits immediate right of one who belongs to Saket?
- A. Who belongs to Noida
- B. Who belongs to Gurugram
- C. Who belongs to Ashok Nagar
- D. Who belongs to Mayur Vihar
- E. Who belongs to Rajiv chowk
15. How many persons sit between G and E from right of E?
- A. Six
- B. Four
- C. None
- D. Two
- E. Three

Directions (16-20): Study the table carefully and answer the questions given below.

There are eight persons P, Q, R, S, T, U, V and W are sitting around a circular table and all of them facing outside the center. They like different engineering branches i.e., Civil, Mechanical, Chemical, Electrical, Optical, Power, Computer and Geological but not necessarily in the same order. P likes Electrical and R sits second to the left of P. Only one person is sitting between R and U. Q likes Chemical and is sitting second to the left of U. S sits third to right of Q. T likes Power and sits second to right of S. Only one person is sitting between T and V. The one who likes Mechanical is sitting second to the right of the one who likes Geological. S does not like Mechanical. R likes Computer and U does not like Optical.

16. Who sits to the immediate right of one who likes Electrical?
- A. V
- B. Q
- C. R
- D. T
- E. P
17. Who among the following likes Civil?
- A. S
- B. Q
- C. R
- D. T
- E. U
18. Who sits third to the left of one who likes Optical?
- A. R
- B. U
- C. T
- D. S
- E. Q
19. Which engineering branch likes V?
- A. Chemical
- B. Geological
- C. Electrical
- D. Computer
- E. Power



20. How many persons sit between those who likes Civil and Power from left of Power?
- A. One B. Four
 C. Six D. Two
 E. Three

Directions (21-25): Study the table carefully and answer the questions given below.

Eight people – P, Q, R, S, T, U, V and W are sitting around a circular table facing the center, not necessarily in the same order. All of them have different companies car i.e., Ford, TATA, Renault, Maruti, Kia, Toyota, BMW and Audi. Only one person is sitting between T and the one who has Maruti car. W neither has Toyota nor Maruti car. The one who has a Ford car is sitting exactly opposite to the one who has a BMW car. Two persons are sitting between V and the one who has a Ford car. V does not have a Renault car. Three persons are sitting between Q and the one who has an Audi car. Q neither has Renault nor BMW car. R neither has Maruti nor Audi car. P is sitting third to the left of Q. The one who has TATA car is sitting fifth to the left of W. The one who has a Toyota car is not an immediate neighbour of Q. One person is sitting between R and the one who has a BMW car. The person who has Renault car is sitting third to the right of R. U is sitting fourth to the left of the one who has Renault car.

21. Who sits to the immediate left of who has Renault car?
- A. R B. V
 C. T D. S
 E. U
22. Four of the following five are alike in a certain way based on the given arrangement and hence form a group. Which is the one that doesn't belong to that group?
- A. WR B. TU
 C. TR D. SP
 E. QV
23. Who sits second to the right of T?
- A. Who has Toyota's car
 B. Who has Maruti's car
 C. Who has Audi's car
 D. Who has Ford's car
 E. Who has Kia's car
24. Who is second to the left of who has Kia's car?
- A. Q B. U
 C. W D. P

- E. S
25. How many persons sit between P and who has Ford's car?
- A. One B. Four
 C. Six D. Two
 E. Three

Directions (26-30): Study the table carefully and answer the questions given below.

There are eight persons P, Q, R, S, T, U, V and W are sitting around a circular table four of them are facing the center and other four are facing away from the center. They are working in different banks i.e., BOB, Canara bank, Axis bank, Hdfc bank, SBI, ICICI bank, Syndicate bank and PNB bank but not necessarily in the same order The person who works in Hdfc and SBI banks are facing same direction. T is sitting between the person who works in Axis bank and the one who works in PNB bank. U faces the center and sits third to the right of R. S works in Axis bank and faces the person who works in ICICI bank. V sits third to the right of Q, who works in BOB bank. P works in SBI and R works in Canara bank. The person who works in Syndicate bank is facing outside the center and an immediate neighbor of the one who works in PNB bank. W is an immediate neighbor of the person who works in SBI and Syndicate bank. T sits to immediate left of S.

26. Who is sitting third to the right of R?
- A. W B. S
 C. P D. U
 E. None of these
27. What is the position of W with the one who works in Syndicate bank?
- A. Immediate right B. Immediate left
 C. Third to the right D. Third to the left
 E. None of these
28. What is T's position with respect to one who works in PNB ?
- A. Third to the right
 B. Second to the right
 C. Immediate right
 D. Second to the left
 E. Third to the left
29. Who is sitting third to the right of one who works in HDFC bank?
- A. Q B. P
 C. R D. W
 E. T



30. Which one of the following statements is true according to the above-mentioned arrangement?
- P is to the immediate left of one who works in Axis.
 - W sits second to the right of one who works in BOB.
 - V sits second to right of one who works in SBI.
 - T sits fourth to the right of one who works in ICICI.
 - None of these

Directions (31-35): Study the table carefully and answer the questions given below.

Eight Persons, P, Q, R, S, T, U, V and W are sitting around a circular table facing the center but not necessarily in the same order. Each one of them likes different shoes viz. Adidas, Rebook, Puma, Woodland, Red chief, Bata, Vans and UCB. P sits third to right of the person who likes UCB. Only two people sit between the person who likes UCB and W. The persons who like the Red chief and the Rebook are immediate neighbours of each other. Neither P nor W likes Red chief or Rebook. The one who likes Red chief is not an immediate neighbour of the person who likes UCB. The person who likes Adidas sits second to left of T. T is not an immediate neighbour of W. The person who likes Adidas is an immediate neighbour of both the persons who like Bata and Vans. The person who likes Vans sits third to right of Q. Q does not like Red chief. R sits to the immediate right of the person who likes Puma. P does not like Puma. U is not an immediate neighbour of P. V is not an immediate neighbour of the person who likes Adidas.

31. Who amongst the following sits third to the left of T?
- The one who likes Adidas
 - V
 - The person who likes Vans
 - P
 - Q
32. Four of the following five are alike in a certain way based on the given arrangement and thus form a group. Which is the one that does not belong to that group?
- | | |
|-------------|---------------|
| A. U-Puma | B. V-Woodland |
| C. S-Adidas | D. P-Vans |
| E. Q-Puma | |
33. Who amongst the following is the person who likes Woodland?
- | | |
|------|------|
| A. P | B. R |
|------|------|

- | | |
|------|------|
| C. W | D. V |
| E. S | |

34. Which of the following is TRUE with respect to the given seating arrangement?
- The person who likes Bata is an immediate neighbour of the red chief
 - V sits second to right of S
 - The one who likes Bata and the Rebook are immediate neighbours of each other
 - The person who likes Puma sits to the immediate left of the person who likes UCB
 - The one who likes Bata sits second to the left of S
35. Which of the following shoes does Q likes?
- | | |
|-----------|--------------|
| A. Puma | B. Adidas |
| C. Rebook | D. Red chief |
| E. Vans | |

Directions (36-40): Study the table carefully and answer the questions given below.

There are eight friends M, N, O, P, Q, R, S and T sitting around a circular table and all are facing towards the center. They all purchased different items i.e., shoes, belt, wallet, jeans, trousers, shirts, cap and tie from four different malls i.e., Vishal Mart, India Mart, city life and GIP but not necessarily in the same order. Not more than two friends buy from same malls and no two friends who shops from same mall are sitting together. R purchase shoes but not from GIP. Q shop from GIP. There are two friends sitting between those who are shopping from Vishal Mart. N sits second to the right of P, who purchases jeans. Two friends who purchases from India Mart sits opposite to each other. R is an immediate neighbor of N who purchases belt. The one who purchases shirts is an immediate neighbor of those who purchases from GIP. O purchases tie from Citylife. The one who shop from GIP sits second to the right of R. P does not shop from India Mart. T who purchases cap sits on the immediate right of O. S shop from Citylife and he does not purchase trouser.

36. What is the position of N with respect to the one who buys shoes?
- Third to right
 - Second to left
 - Third to left
 - Immediate left
 - Cannot be determined
37. What is the position of S with respect to Q?



- A. Second to right
 B. Immediate left
 C. Third to right
 D. Second to left
 E. Immediate right
38. Who buys cap from GIP?
 A. S B. T
 C. M D. N
 E. R
39. Who is third to the left of the one who buys wallet?
 A. T B. M
 C. N D. Q
 E. R
40. R buys from which shopping mall?
 A. India Mart B. GIP
 C. Citylife D. Vishal Mart
 E. None of these

Directions (41-45): Study the table carefully and answer the questions given below.

There are eight friends J, K, L, M, N, O, P and Q are sitting around a circular table and all friends are facing to the center, but not necessarily in the same order. They are working in different Companies i. Google, Walmart, Samsung, L&T, Amazon, Reliance, Dell and Intel but not necessarily in the same order. Each person has salary account in different banks i.e. PNB, SBI, UBI, Axis, Hdfc, BOM, OBC, and BOB. There is three person sit between K and the one who is working in Reliance. L has saving account in Hdfc. There is three person sit between O and N, whose salary account in PNB. Only one person sit between K and J. N is working in Google. The one who has account in BOM is working in Intel. There are only two persons sit between J and P. There is only one person sit between J and Q. O sits at a gap of two seats to K. The one who has account in BOB sits second to the right of K. M is not an immediate neighbour of the person who is third to the left of J. The one whose account in BOM sits second to the right of L. The one who is working in Dell sits immediate left of J. There are two persons sit between whose account in Axis and M. The one who is working in L&T sits opposite to N and has account in SBI. The one whose account in OBC sits opposite to one whose account in UBI. The one who is working in Dell has no account in OBC. The one who is working in Samsung sits immediate right to the one who is working in Walmart. Q is sitting next to P.

41. What is the position of K with respect to O?

- A. Third to right
 B. Second to left
 C. Fourth to right
 D. Third to left
 E. Cannot be determined
42. What is the position of M with respect to who the one works in Amazon?
 A. Second to right B. Immediate left
 C. Third to right D. Second to left
 E. Immediate right
43. Who sits opposite to whose account in UBI?
 A. P B. Q
 C. N D. L
 E. Cannot be determined
44. In certain way O is related to K, Q is related to M and in same way P is related to ____ of the following?
 A. L B. M
 C. J D. Q
 E. O
45. Q sits opposite to who works in which of the following companies?
 A. Google B. Samsung
 C. Intel D. Walmart
 E. Reliance

Directions (46-50): Study the table carefully and answer the questions given below.

There are eight friends A, B, C, D, E, F, G and H sitting around a circular table and four of them are facing the center and other four are facing away from the center. All of them attend a meeting on different dates from 1st to 8th of a month. Each of them uses different vehicles to attend the meeting i.e., Train, Car, Truck, Auto, Cycle, Boat, Scooter and Motorcycle but not necessarily in the same order. E who will attend on 3rd, is sitting third to the right of C. B uses Car and sitting adjacent to F who will attend on 7th. Both B and F are facing towards the center. H faces the same direction as C and he is not the neighbour of G. C is not will attend on 1st and he uses Truck. G will attend on 4th. The one who will attend on 1st uses Auto. The one who will attend on 6th and uses Cycle is sitting to the immediate left of the person who uses Boat. D who is facing towards the center is sitting second to the left of G. C is sitting adjacent to both G and D and F is sitting fourth to the right of C. G is facing outwards and uses Train. The one who will attend on 2nd is sitting second to the right of D who will attend on 8th and D uses Scooter.



46. Who sits to the immediate left of the one who used Motorcycle?
 A. E B. B
 C. D D. H
 E. None of these
47. Who sits second to the left of the one who attend the meeting on 6th?
 A. D B. H
 C. E D. F
 E. None of these
48. D is sitting third to the left of the one who used?
 A. Motor Cycle B. Truck
 C. Car D. Scooter
 E. None of these
49. Who is sitting second to the right of the one who attend meeting on 4th?
 A. G B. F
 C. E D. H
 E. None of these
50. How many persons sit between the C and the one who used Motorcycle, when counted from right of C?
 A. One B. Four
 C. Three D. Six
 E. None of these

Directions (51-55): Study the table carefully and answer the questions given below.

There are eight friends A, B, C, D, E, F, G and H sitting around a circular table and four of them are facing the center and other four are facing away from the center. Each of them has given different subjects test i.e. Reasoning, politics, Economics, Quant, GA, English, Geography and History and all of them obtained different marks i.e. 35, 36, 38, 40, 42, 45, 48 and 49 but not necessarily in the same order. The adjacent members do not face the same direction. The person who obtained 40 marks gives Reasoning test and is sitting third to the right of C. The person who gives Politics test obtained 42 marks and sits opposite A, who obtained 40 marks. B and C are the neighbours of H. B obtained 35 marks and is facing towards the

center. The persons who gives Quant and GA are sitting opposite to each other. D who obtained 36 marks gives Economics test and he is an immediate neighbour of A. F who gives GA test does not sit adjacent to both B and E and he does not obtain highest mark. The person who gives Quant test obtained 45 marks. The person who obtained 38 marks is sitting opposite to the person who gives English test. E who obtained marks only more than two friend is sitting second to the left of B and gives History test. The one who has given English test obtained more marks than the one, who has given GA test.

51. What is the position of G with respect to the one, who obtained 40 marks?
 A. Second to left
 B. Third to left
 C. Third to right
 D. Fourth to right
 E. Cannot be determined
52. What is the position of H with respect to the one who given Geography test?
 A. Second to right B. Immediate left
 C. Third to right D. Second to left
 E. Immediate right
53. In certain way F is related to C, A is related to D and in same way E is related to ____ of the following??
 A. A B. G
 C. H D. B
 E. E
54. Who sits second to the right of the one who obtained 36 marks?
 A. F B. A
 C. H D. E
 E. B
55. Who sits opposite to the one who given Economics test?
 A. F B. C
 C. B D. A
 E. G



ANSWER KEY

EXERCISE 1					EXERCISE 2				
1) D	20) E	39) D	58) A	77) A	1) A	12) C	23) B	34) D	45) C
2) B	21) B	40) E	59) A	78) B	2) E	13) E	24) D	35) C	46) B
3) A	22) A	41) A	60) E	79) B	3) B	14) B	25) E	36) D	47) D
4) C	23) D	42) E	61) C	80) C	4) D	15) D	26) D	37) A	48) B
5) E	24) B	43) A	62) B	81) D	5) C	16) A	27) A	38) B	49) C
6) C	25) A	44) B	63) E	82) B	6) C	17) E	28) C	39) B	50) C
7) B	26) C	45) B	64) A	83) A	7) E	18) E	29) D	40) D	51) A
8) A	27) B	46) B	65) D	84) C	8) D	19) B	30) B	41) D	52) E
9) D	28) E	47) E	66) B	85) C	9) D	20) D	31) C	42) B	53) B
10) E	29) B	48) C	67) C	86) B	10) B	21) A	32) E	43) A	54) D
11) C	30) C	49) A	68) D	87) D	11) A	22) C	33) A	44) C	55) C
12) D	31) C	50) D	69) E	88) A					
13) C	32) A	51) C	70) D	89) C					
14) D	33) A	52) D	71) D	90) C					
15) A	34) C	53) C	72) A	91) A					
16) D	35) B	54) D	73) C	92) E					
17) A	36) C	55) C	74) B	93) B					
18) C	37) B	56) D	75) D	94) D					
19) B	38) A	57) A	76) D	95) C					



TABULAR PUZZLES

Exercise - 1

Directions (1-5): Study the table carefully and answer the questions given below.

Seven boxes M, N, O, P, Q, R and S are kept one above the other containing a different number of toys ranging from 10-90. Box R is below box P. Two boxes are kept between M and the box containing 41 toys, which is kept below Box M. P contains thrice the number of toys than box N. Box O contains 50 toys and is not kept at the top. The number of toys in box S is a cube of a number. Only one box is kept between boxes containing 41 toys and 39 toys. Box P has less number of toys than box M. One of the boxes contains 78 toys. Five boxes are kept between boxes containing 64 toys and Box O. Box S is immediately above box Q. Box P is not kept immediately above or below box N. Three boxes are kept between box P and box R. Not more than four boxes are kept above M.

- How many toys are kept in Box N?
A. 15 B. 13
C. 78 D. 27
E. None of these
- Which among the following boxes contains the maximum number of toys?
A. Q B. N
C. R D. S
E. P
- Which among the following boxes is kept immediately below box Q?
A. N
B. P
C. the one which has 78 toys
D. S
E. R
- Which among the following box/boxes is kept exactly between Box P and Box N?
A. R, O B. M, S
C. S, R D. O, Q
E. S, Q
- Which of the following combinations is not true?
A. M-64 B. S-27
C. Q-41 D. R-50
E. All of these

Directions (6-10): Study the table carefully and answer the questions given below.

Seven boxes arranged in a stack P, Q, R, S, T, U and V are placed one above another (but not necessarily in the same order) are of seven different colours Red, Orange, Indigo, Brown, Black, White and Purple. Indigo colour box is just above V. More than four boxes are between box P and the Purple colour box. Box Q is of Orange colour and placed just above box U. Only one box is between U and R. T is not of Purple colour. Only three boxes are between the Red colour box and V. The White colour box is just above the Brown colour box. Box T is not of Brown colour. Only three boxes are between V and P. Box which is of Black colour is not U.

- How many boxes are there between Black coloured box and Box S?
A. 1 B. 3
C. 4 D. 2
E. None of these
- How many boxes are between Box P and U?
A. 1 B. 2
C. 3 D. 4
E. 5
- Which among the following boxes is kept 2 places away from box Q?
A. R
B. U
C. the one which is Purple colour
D. T
E. P
- Which among the following box/boxes is kept immediately below Box R?
A. U B. M
C. P D. N
E. S
- Which of the following combinations is true?
A. T-Red B. S-Indigo
C. Q-White D. R-Brown
E. All of these

Directions (11-15): Study the table carefully and answer the questions given below.

Eight boxes A, B, C, D, E, F, G and H are placed one above another. Each of them contains different Vegetables: Aster, Marigold, Sunflower, Jasmine, Tulip, Daisy, Iris and Lily. Box E contains Lily. Two boxes are placed between box E and box A. Box C contains Jasmine and is placed immediately above box F. Only two boxes are placed between box F and box H which contains Sunflower. Only one box is placed between box E and box H. Four boxes are placed between box G and D and box G is placed above box D. Not more than one box is placed between box D and B which contains Daisy. The box which contains Sunflower is placed below box D. Box of Iris is placed immediately above the box containing Marigold. Box D does not contain Aster.

11. Which of the following boxes contains Aster?
A. A
B. B
C. F
D. H
E. E
12. Which of the following boxes is Immediately above the box that contains daisy?
A. the box that contains marigold
B. A
C. C
D. the box that contains Sunflower
E. F
13. Box B contains which of the following flowers?
A. Iris
B. Daisy
C. Marigold
D. Sunflower
E. None of these
14. How many boxes are placed between C and the box that contains Lily?
A. 1
B. 2
C. 3
D. 4
E. 5
15. If box of Iris is related to box E, box C is related to Sunflower in a certain way then in the same way box of Aster is related to which of the following?
A. A
B. the box which contains tulip
C. the box which contains marigold

- D. H
E. B

Directions (16 -20): Study the table carefully and answer the questions given below.

Eight persons i.e., P, Q, R, S, T, U, V and W live on eight different floors of the building such that the ground floor is no. 1 and top floor is 8. All information is not necessarily in the same order. More than four persons live below S. Two person lives between S and T. P lives on an odd number floor. Two people sit between P and R. T lives on the third floor. W lives just above floor Q. R lives below P. U does not live below P.

16. How many people live between S and V?
- A. 4 B. 7
- C. 2 D. 5
- E. None of these
17. Who among the following lives on the 7th floor?
- A. P B. R
- C. S D. V
- E. T
18. Who lives on the fourth floor?
- A. U B. R
- C. S D. V
- E. Q
19. Which of the following statements is true about S?
- A. More than 4 people live between S and Q
- B. S lives on an odd numbered floor
- C. S lives above V
- D. Three people live above S
- E. None is true
20. Four of the following five are alike in a certain way so form a group, find the odd one out.
- A. W B. S
- C. R D. T
- E. U

Directions (21-25): Study the table carefully and answer the questions given below.

Eight boxes G, H, I, J, K, L, M and N are placed one above the other in any particular order. Box no. 1 is at the bottom and box no. 8 is at the top. Three boxes are placed between G and H. Box N is placed immediately below G. There are two boxes between N and M. There are as many boxes between I and J as between H and N. Box I is kept above J. Box K is kept



immediately below box J. Three boxes are there between K and L.

21. How many boxes are above J?
A. 4
B. 3
C. 6
D. 2
E. None of these
22. Which of the following box is kept at the top?
A. H
B. L
C. G
D. K
E. J
23. Choose the odd one out.
A. H
B. M
C. G
D. J
E. K
24. How many boxes are placed between M and J?
A. 1
B. 2
C. 3
D. 4
E. 5
25. How many boxes are placed between L and N?
A. 6
B. 3
C. 2
D. 1
E. 5

Directions (26-30): Study the table carefully and answer the questions given below.

Eight people viz. P, Q, R, S, T, U, V and W live in a Building on different floors from top to bottom (such as ground floor is numbered as 1 and top floor is numbered as 8) but not necessarily in the same order. R lives on floor number 6. Only one person lives between U and V. There is a gap of three floors between S and U and both of them live on an odd number of floors. Three people live between T and Q. W lives just above Q, who lives on an even numbered floor. S lives above R.

26. Who among the following lives on the ground floor?
A. W
B. S
C. T
D. V
E. None of these
27. Who among the following lives immediately below U?
A. T
B. R
C. P
D. Q
E. None of these
28. How many people live between R and Q?

- A. One
B. Three
C. Fives
D. Two
E. None of these

29. Who among the following lives on the Top floor?
A. W
B. S
C. T
D. V
E. None of these
30. Which of the following combinations is false?
A. S-7
B. U-3
C. P-2
D. Q-4
E. W-1

Directions (31-35): Study the table carefully and answer the questions given below.

There are eight persons namely A, B, C, D, E, F, G and H who live on eight different floors from one to eight. Ground floor is number 1 and top floor is number eight but not necessarily in the same order. H does not live immediately above G. More than two people live between H and G. There are six people living between A and G. D lives immediately above E but lives below B. C does not live above F. F lives on an odd number floor but does not live on the 3rd floor. H lives immediately below F.

31. Who lives on floor number five?
A. C
B. A
C. H
D. B
E. None of these
32. How many people live between E and F?
A. One
B. Three
C. Five
D. Two
E. None of these
33. Who lives immediately above D?
A. H
B. B
C. G
D. E
E. None of these
34. Four of the following five are alike in a certain way based on the given arrangement and thus form a group. Which is the one that does not belong to that group?
A. G
B. D
C. B
D. F
E. E
35. Who lives on the 2nd floor?



- A. F
C. C
E. None of these
- B. A
D. H

Directions (36-40): Study the table carefully and answer the questions given below.

There are nine people P, Q, R, S, T, U, V, W and X living on nine different floors starting from ground floor as floor1, above is floor2 and so on to floor9. Only one person lives on each of the floor. S lives just above the floor on which U lives. There are three people living between T and U. P Lives immediately below R. V lives on the top floor. There are two people living between Q and T. W lives immediately above X. X lives on the 6th floor. T lives on one of the odd floors below W. R lives on one of the even floors below the floor on which T lives.

36. Who lives on floor number 5?
A. V
C. T
E. None of the above
37. Who lives immediately below R?
A. P
C. S
E. None is true.
38. Who lives on the odd number floor?
A. Q
C. T
E. None of the above
39. Who lives just above X?
A. W
C. S
E. None of the above
40. Who lives on the bottom floor?
A. Q
C. X
E. None of the above

Directions (41-45): Study the table carefully and answer the questions given below.

Eleven persons buy things one after another. Only five people buy things after A. Three people buy things between A and B. C buys things after D and before E. There are as many people buying things before F as after G. More than three people buy things between H and I who buy things just after A. J buys

things before K and after C. No one buys things after E. J buy things just after G. F buys after B.

41. Who among the following buy things between I and K?
A. F and J
C. G and J
E. None of these
42. Four of the following five are alike in certain way and hence form a group, find the one which does not belong to that group?
A. BC
C. HF
E. AJ
43. Which of the following statement is true?
A. C buy things before F
B. More than two persons buy things before D
C. No one buy things before B
D. A buy things after K
E. None is true
44. How many people buy things between J and C?
A. Three
C. Seven
E. None of these
45. Who among the following buy things just after F?
A. B
C. D
E. None of these

Directions (46-50): Study the table carefully and answer the questions given below.

Seven people viz. P, Q, R, S, T, U and V live in a building on seven different floors such as ground floor is numbered 1, the floor just above is numbered 2 and so on till top floor numbered as seven but not necessarily in the same order. There are less than three floors above P. U does not live on an even number floor. Only one person lives between R and P. V lives immediately below S. S lives on an even number floor. Q lives immediately above P. U lives above T. U does not live on the 5th floor.

46. Four of the following five belong to a group: find the one that does not belong to that group.
A. RS
C. UQ
- B. TR
D. PQ

- E. VR
47. Who among the following lives on the top floor?
A. T B. Q
C. U D. S
E. None of these
48. Number of persons living above U is the same as the number of persons below __?
A. Q B. S
C. R D. V
E. None of these
49. How many floors are there above the floor on which V lives?
A. One B. Two
C. Three D. More than Four
E. Four
50. Who lives immediately below P?
A. S B. T
C. U D. R
E. None of these

Directions (51-55): Study the table carefully and answer the questions given below.

There are nine boxes i.e. A, B, C, D, E, F, G, H and I placed one above the other but not necessarily in the same order. The number of boxes above H is one more than the number of boxes placed below G. Box A was placed just above Box F. There are two boxes between B and F. There is one box gap between C and B. There are more than three boxes between A and C. There are more than three boxes between D and G. Box H was placed above G. There are three boxes gap between E and D. There are three boxes gap between E and I.

51. Which of the following boxes is placed just below D?
- A. H B. A
- C. B D. G
- E. C
52. How many boxes are placed between B and I?
- A. One B. Two
- C. None D. Three
- E. None of these
53. Which of the following box is placed in bottom most position?
- A. E B. F
- C. H D. I

- E. G
54. Four of the following five are alike in a certain way and hence they form a group. Which one of the following does not belong to that group?
- A. D and F B. H and B
C. G and I D. C and I
E. F and E
55. If the positions of D and H are interchanged with each other, then find how many boxes are placed between B and D?
- A. None B. One
C. Two D. Four
E. More than five

Directions (56–60): Study the table carefully and answer the questions given below.

There are eight persons A, B, C, D, E, F, G and H living on an eight-floor building (Ground floor is numbered 1 above number 1 is number 2 and so on topmost floor is number 8.) but not necessarily in the same order. D lives on an odd number floor above 4th floor. There are two people who live between D and C. G lives on one of the odd number floors but not on the bottom floor. There is one person living between C and A who lives just below E. The total number of persons living between F and B is the same as the total number of persons living between F and A.

56. Which of the following floors belongs to F?
- A. 4th
- B. 5th
- C. 7th
- D. 1st
- E. 2nd
57. How many persons lives between D and B?
- A. One
- B. Two
- C. Three
- D. Four
- E. None
58. If all the persons are arranged alphabetically from top to bottom than how many persons remain unchanged?
- A. One
- B. Two
- C. Three
- D. Four
- E. None
59. Four of the following five are alike in a certain way based on their arrangement: find the one which does not belong to that group?



- | | |
|------|------|
| A. B | B. A |
| C. F | D. C |
| E. G | |

60. C is related to A in the way D is related to G, then following the same pattern, F is related to?

- | | |
|-------------------|------|
| A. B | B. W |
| C. G | D. D |
| E. None of these. | |

Directions (61– 65): Study the table carefully and answer the questions given below.

There are eleven boxes placed one above the other. Five boxes are placed between P and W. Not more than five boxes are kept above T. Two boxes are kept between W and T. Three boxes are kept between T and V and T is kept at one of the positions above V. There are only three boxes kept above the box R. One box is kept between U and V. Two boxes are kept between U and Q. Box N is kept at one of the positions below box S and at one of the positions above box M which is not above U. Box O is kept immediately above S.

61. How many boxes are placed between R and U?
A. 5
B. 6
C. 3
D. 4
E. None of these
62. Which of the following statements is true regarding M?
A. M is placed at one of the positions above N
B. M is placed immediately below P.
C. U is placed just above M
D. M is placed at the bottom most position
E. None of these
63. Which of the following is not true regarding R?
A. R is immediately below box W
B. One of the boxes below R is N
C. Number of boxes between R and V is four
D. One of the boxes above R is S
E. One box is kept between R and T
64. Number of boxes above S is one less than the number of boxes below _____.
A. V
B. U
C. P
D. N
E. None of these
65. How many boxes are there between T and Q?

- | | |
|--------------------|---------|
| A. One | B. Two |
| C. Three | D. None |
| E. More than three | |

Directions (66–70): Study the table carefully and answer the questions given below.

A, B, C, D, E, F and G are seven friends who live in a seven-storey building. The first floor is numbered 1, and the topmost floor is numbered 7. Each of them belongs to a different country viz. Russia, Saudi Arabia, Austria, Bangladesh, Kazakhstan, Korea and China but not necessarily in the same order. The person who belongs to China lives above A. G lives on the fifth floor. Neither E nor G belongs to Saudi Arabia. There are two floors between the floor in which E and C live. The person who belongs to Korea lives on the topmost floor. The one who belongs to Kazakhstan lives just above E. C lives on an even-numbered floor. F is from Austria. There is only one floor between B and the one who is from Saudi Arabia. There are three floors between A and the one who is from Russia. G and E are not from Bangladesh.

66. Who is from Russia?
A. C
B. D
C. E
D. G
E. None of these
67. Which of the following groups live on an even numbered floor?
A. C, E, F
B. B, D, G
C. F, E, G
D. C, B, F
E. None of these
68. Which of the following statements is/are true?
A. A lives on an even-numbered floor.
B. There are two floors between the one who are from Russia and China.
C. The one who is from Saudi Arabia lives below D
D. None is true
E. All of these
69. How many floors are there between F and A?
A. One
B. Two
C. Three
D. Nil
E. None of these
70. Who among the following lives on the topmost floor?
A. F
B. C
C. D
D. E



E. None of these.

Directions (71-75): Study the table carefully and answer the questions given below.

Seven persons i.e. A, B, C, D, E, F and G are buying different items one after another but not necessarily in the same order. More than two people are buying items between E and D. Three people buy items between D and B. E buys an item immediately before F. D buys before E. G buys before A. One person buys an item between B and C.

71. How many people buy items before C?
A. None
B. One
C. Two
D. Three
E. More than three
72. Who among the following buys an item just before E?
A. A
B. B
C. C
D. G
E. None of these
73. Number of persons buying items before G is the same as the persons buying items after which of the following person?
A. E
B. F
C. A
D. B
E. None of these
74. Which of the following is true regarding G?
A. No one buy items before G
B. G buys before D
C. Two persons buy items between G and B
D. One person buys between C and G
E. None is true
75. Four of the following five are alike in a certain way based form a group, find the one which does not belong to that group?
A. E-A
B. F-B
C. A-G
D. B-E
E. D-C

Directions (76-80): Study the table carefully and answer the questions given below.

Rajiv joins classes from Monday to Sunday of the same week for different subjects viz. Finance, Economics, Business Studies, History, Mathematics, English and Geography. History class taken by him on Wednesday. There is a one-day gap between History class and Mathematics class. And there is a three-day

gap between mathematics class and English class. English class is scheduled immediately before Business studies class but not on Monday.

Economics is scheduled immediately after mathematics class. There is a one day gap between Economics class and Geography class. And Finance class is scheduled on Sunday.

76. How many days is the gap between History and Economics class?
A. One
B. Two
C. Three
D. Four
E. None
77. History class is scheduled on which day?
A. Monday
B. Wednesday
C. Thursday
D. Friday
E. None of these
78. Which of the following is correct combination given below?
A. History = Monday
B. Business Studies = Tuesday
C. Economics = Thursday
D. Mathematics = Monday
E. Finance = Friday
79. On which day of the week is Economics class scheduled?
A. Monday
B. Tuesday
C. Wednesday
D. Thursday
E. None of these.
80. Four of the following five are alike in a certain way and form a group which one does not belong to the group?
A. Tuesday = History
B. Monday = Economics
C. Friday = Business studies
D. Saturday = History
E. Thursday = English

Directions (81-85): Study the table carefully and answer the questions given below.

There are seven persons A, B, C, D, E, F and G who were born on the same day of the same month of different year i.e., 1984, 1946, 1967, 1972, 1982, 1989 and 1992 but not necessarily in the same order. (Note: Their age is considered as on the same month and day of 2017 as their date of birth). The difference

between the ages of B and C is twice the square root of the age of one of any seven persons. Difference between the ages of C and D is the same as the number obtained by dividing ages of any two among the other five persons. Age of A is greatest amongst those whose age is a multiple of five. E is older than G who is not the youngest. B is not the youngest person.

81. Who amongst the following person is the oldest?
A. A
B. G
C. F
D. E
E. None of these
82. What is the age of C?
A. 33 years
B. 35 years
C. 25 years
D. 45 years
E. 50 years
83. How many people are younger than F?
A. One
B. Two
C. Three
D. Four
E. No one
84. What is the age of D?
A. 45 years
B. 35 years
C. 33 years
D. 50 years
E. 28 years
85. Who was born in 1989?
A. G
B. F
C. E
D. A
E. B

Directions (86 – 90): Study the table carefully and answer the questions given below.

Seven persons P, Q, R, S, T, U and V were born in different Days viz. January, February, March, May, July, September, November the same year, but not necessarily in the same order. Only three persons were born before T and S is not one of them. U was not born immediately after T. Q was born after U. P was born immediately before the month in which V was born. Only two people were born between V and U.

86. How many people were born between R and T?
A. Three
B. Two
C. Four
D. Five
E. None of these
87. Who amongst the following is the oldest?
A. P
B. R

88. Who amongst the following was born between the months in which P and S were born?
- A. T
B. V
C. R
D. Q
E. Both T and V
89. How many people were born after S?
- A. One
B. Three
C. Four
D. Two
E. None of these
90. Who amongst the following is the person who was born in the month which has less than 30 days?
- A. U
B. Q
C. V
D. R
E. P

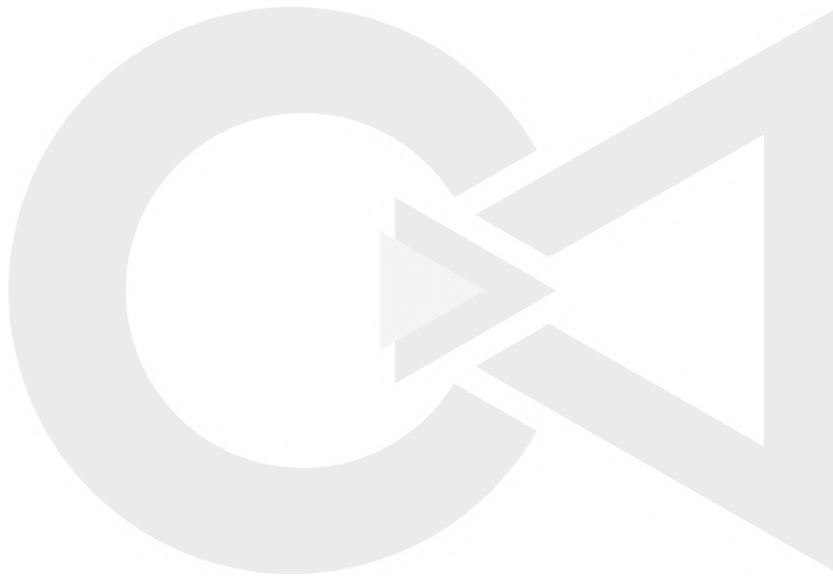
Directions (91 –95): Study the table carefully and answer the questions given below.

Eight persons i.e., G, H, I, J, K, L, M and N are getting their salaries in eight different months i.e., March, April, May, June, July, August, September and October. All information is not necessarily in the same order. G gets his salary in the month which has 31 days but after July. Two people get a salary between G and M. I gets his salary immediately before J and in the month, which has 30 days. There are as many people getting a salary between L and H as between H and K. N gets his salary immediately before L.

91. Who among the following person gets his salary immediately after M?
- A. H
B. I
C. K
D. N
E. None of these
92. How many people are getting salaries between H and L?
- A. Two
B. One
C. three
D. More than three
E. None
93. In which of the following month J gets his salary?
- A. March
B. April
C. May
D. June
E. None of these



94. Who among the following people gets his salary in August?
- A. H B. J
C. K D. L
E. None of these
95. Four of the following five are alike in a certain way-based form a group, find the one which does not belong to that group?
- A. K-J B. K-H
C. H-I D. M-L
E. G-N





Exercise 2

Directions (1 – 5): Study the table carefully and answer the questions given below.

Seven different boxes S, T, U, V, W, X, and Y of different colours viz., Grey, Red, Indigo, Yellow, Violet, Brown and Orange are arranged one above the other. The box at the bottom of the arrangement is numbered 1, the above box is numbered 2 and so on. T is immediately above W. More than two boxes are above the Grey box. The Yellow box is immediately below S. Neither U nor Y is a yellow box. Y is not a grey box. Only one box is between the Grey box and X. Only two boxes are between the Red and the Orange box. Only two boxes are between the yellow box and the Grey box. The Indigo box is neither at the top nor at the bottom of the arrangement. T is above the red box. U is immediately above X. Box S is not at top. Y is immediately above the Brown box. Only one box is between T and the Red box.

- Which of the following is the colour of Box "W"?
A. Red
B. Violet
C. Brown
D. Grey
E. None of the Above
- Which of the following is correctly matched?
A. X – Violet
B. T – Yellow
C. W – Indigo
D. S – Brown
E. V – Red
- Which combination represents the position of U and its colour?
A. 5 – Violet
B. 4 – Brown
C. 1 – Yellow
D. 4 – Grey
E. 7 – Violet
- As per the given arrangement, Y is related to Orange and S is related to Indigo in a certain way. To which of the following is V related to the same way?
A. Yellow
B. Brown
C. Grey
D. Violet
E. None of the Above
- Which box is in between the box numbered 6 and the box of grey colour?
A. Box numbered 3
B. Brown
C. Box numbered 4
D. Indigo
E. None of the Above

Directions (6 – 10): Study the table carefully and answer the questions given below.

There are six boxes G, H, I, J, K, and L in a room, and placed one above another, each having different number of Toys i.e., 10, 15, 18, 21, 24 and 32, also they are of different colours i.e., Orange, Yellow, Brown, Grey, Black, and Indigo (but not necessarily in the same order). Only three boxes are placed between box G and J, which has an odd number of toys. There is only one box placed between J and H, which is of yellow colour. Box K is of orange colour and doesn't place just above and below box H, but placed one of the boxes above box H. The box which is placed just above J is of black colour. The box which is placed at the top has 11 Toys more than box J. Box L's colour is not black. Grey coloured box has 18 toys. At least two boxes are placed below G, which has an odd number of toys. Box J is not of indigo colour and box I doesn't have 24 toys.

- What is the color of the Box which has 10 toys?
A. Black
B. Yellow
C. Grey
D. Indigo
E. None of these
- Which of the following boxes is placed at top and how many toys are there in it?
A. H, 32
B. K, 24
C. I, 18
D. K, 32
E. None of these
- How many boxes are placed between K and the box which is of brown colour?
A. One
B. Three
C. Two
D. More than three
E. None of these
- Which box is placed just above box H?
A. L
B. J
C. G
D. K
E. None of these
- Which of the following boxes has the maximum number of toys?
A. The box which is placed just above G
B. H
C. Both A. and D.
D. Orange coloured box
E. None of these



Directions (11 – 15): Study the table carefully and answer the questions given below.

There are seven different boxes P, Q, R, S, T, U and V which are placed one above the other. They contain different numbers of chocolates namely viz., 24, 12, 15, 6, 9, 18 and 21 but not necessarily in the same order. The box which is placed at the bottom of the arrangement is numbered 1, the above box is numbered 2 and so on. The Box which contains 6 chocolates is placed immediately below P. Only one Box is placed between the box which contains 24 chocolates and U. V is placed immediately above the box which contains 18 chocolates. More than two Boxes are placed above the Box that contains 24 chocolates. Only two Boxes are placed between the Box which contains 12 chocolates and the box that contains 21 chocolates. Only two Boxes are there between the Box which contains 6 chocolates and the box which contains 24 chocolates. Box Q is placed immediately above T. The Box which contains 15 chocolates is placed neither at the top nor at the bottom of the arrangement. Box Q and Box V do not contain 24 chocolates. Only one Box is placed between Q and the Box which contains 12 chocolates. Box Q is placed above the box which contains 12 chocolates. Box R is placed immediately above Box U. Neither R nor V contains 6 chocolates.

11. Which amongst the following box is arranged exactly in between U and T?
A. Q
B. R
C. S
D. P
E. Other than those given as options
12. Which of the following combinations represents the number (position from the bottom) of Box R and the number of chocolates in it respectively?
A. 5 – 9
B. 4 – 18
C. 1 – 6
D. 4 – 24
E. 7 – 9
13. Which of the following number of chocolates is in Box "P"?
A. 9
B. 21
C. 18
D. 24
E. None of the Above
14. As per the given arrangement, S is related to 9 and U is related to 18 in a certain way. Then V is related to which of the following in the same way?

- A. 9
B. 21
C. 15
D. 24
E. None of the Above

15. Which of the following pairs of boxes occupies the top, exact middle and bottom positions of the arrangement?
A. R, P, T
B. R, T, U
C. P, T, V
D. Q, U, S
E. R, T, S

Directions (16 – 20): Study the table carefully and answer the questions given below.

Seven different Containers P, Q, R, S, T, U and V contain seven different chocolates namely viz., Fuse, Munch, 5-Star, Galaxy, Bounty, Twix and Mars are arranged one above the other. The Container at the bottom of arrangement is numbered 1, the above Container is numbered 2 and so on. The Container which contains Galaxy chocolate is immediately below P. Only one Container is between the Fuse Container and U. Neither R nor V contains Galaxy. V is immediately above the Twix Container. Only two Containers are between the Container which contains Galaxy chocolate and the Container which contains Fuse. Q is immediately above T. The Container filled with 5-Star is neither at the top nor at the bottom of the arrangement. Container Q does not contain Fuse. Only one Container is between Q and the Container which is filled with Munch. Q is placed above the Munch Container. R is placed immediately above U. There are three containers above the Container that contains Fuse. Only two Containers are between the Munch Container and the Container that contains Mars.

16. Which of the following combinations represents the position of R and the chocolate which it contains ?
A. 5 – Bounty
B. 4 – Twix
C. 1 – Galaxy
D. 4 – Fuse
E. 7 – Bounty
17. Which amongst the following containers is arranged exactly in between U and T?
A. P
B. S
C. Q
D. T
E. Other than those given as options
18. Which of the following chocolate is filled in Container "P"?
A. Bounty
B. Mars



- C. Twix
E. None of the Above
19. As per the given arrangement, S is related to Bounty and U is related to Twix in a certain way. Then V is related to which of the following in the same way?
- A. Bounty
C. 5-Star
E. None of the Above
20. Which of the following pairs of people occupies the top, middle and bottom positions of the arrangement?
- A. R, P, T
C. P, T, V
E. R, T, S
- D. Fuse
B. Mars
D. Fuse
B. R, T, U
D. Q, U, S

Directions (21 – 25): Study the table carefully and answer the questions given below.

Seven boxes A, B, C, D, E, F and G are placed one above another. They are of different colours i.e., Orange, Violet, Purple, Black, Brown, Peach, and Indigo (but not necessarily in the same order). Each box has different numbers of books in it, i.e., 21, 11, 19, 13, 8, 5, 25 (not necessarily in the same order). Box B has 11 books in it. Box D doesn't have 19 books in it. There are three boxes placed between B and the box which is Black. Box C's colour is not black. Box A is placed just above box F, which is not Violet. Colour of box G is orange. Brown coloured box has minimum number of books in it. There is only one box placed between box B and D. Box E is placed below black coloured box. Box G is placed above box D. Violet coloured box is placed just above box B. Box A is not placed at top and it is also not placed above D. There are only three boxes placed between box B and the box which has the second highest number of books in it. The box which has the highest number of books placed above the orange coloured box. Peach coloured box has 19 books in it and is placed above E. The Colour of Box D is not brown. Purple coloured box has 13 books in it.

21. What is the colour of Box B?
- A. Black
C. Peach
E. None of these
22. Which of the following boxes is placed at the top?
- A. A

- B. C
C. Both B and D
D. Violet coloured box
E. None of these
23. How many boxes are placed between F and the box which has 8 books in it?
- A. One
C. Two
E. None of these
24. Which of the following boxes has 13 books in it?
- A. G
C. A
E. None of these
25. What is the colour of Box A?
- A. Black
C. Peach
E. None of these
- B. Three
D. More than three
B. C
D. D
B. Violet
D. Indigo

Directions (26 – 30): Study the table carefully and answer the questions given below.

Eight persons P, Q, R, S, T, U, V and W live in a building having eight floors such that the ground floor is numbered as 1 and second as 2 ..., and top floor is numbered as 8. They all like different colours viz. White, Brown, Blue, Indigo, Yellow, Black, Red and Purple but not necessarily in the same order. Q lives on an even number floor but not above 5th floor. Only two persons live between Q and S. U likes Black and lives immediately above R. U lives on an odd number floor. The one, who likes White, lives on an even number floor. P lives below Q and lives on an odd numbered floor. The one who lives on 6th floor likes Indigo. The one, who lives on lowermost floor, likes Brown. S lives below Q, who likes Yellow. W likes Blue and lives on an odd number floor. Only two persons live between the one who likes Blue and T. The one, who likes Purple lives immediately above the one who likes White. More than one person lives below V.

26. Who lives on second floor?
- A. U
C. T
E. Q
27. R likes which of the following colour?
- A. Brown
C. Blue
- B. V
D. P
B. White
D. Indigo

- E. Black
28. Who likes Red?
- A. U
C. T
E. Q
- B. V
D. P
29. The one who likes Purple lives on which floor?
- A. 7th
C. 6th
E. 1st
- B. 3rd
D. 4th
30. If V is related to Indigo in a certain way and R is related to Yellow, in the same way Q related to which of the following?
- A. Brown
C. Blue
E. Black
- B. White
D. Indigo

Directions (31 - 35): Study the table carefully and answer the questions given below.

In an university, for the B.Tech programme, There are six students i.e. A, B, C, D, E and F are going to college in different days of week from Monday to Sunday. They all belong to different states i.e. Punjab, Gujarat, UP, Kashmir, Chattisgarh and Delhi. One day will be a holiday among these days. The one who is going just after holiday, belongs to Delhi. C does not go on Friday. A is going immediately after D. The one who is going on Tuesday belongs to UP. There is a gap of two days between B and F. There are five days gap between the persons who belong to Kashmir and Chattisgarh. There is one holiday except on Saturday. F is going on the next day of holiday. E is going on Wednesday, and it is not immediately followed by F. E belongs to Punjab. A does not belong to Kashmir. The one who is going just before A, belongs to Gujarat.

31. Who among the following is going to college on Friday?
- A. C B. A
- C. F D. D
- E. No one
32. Who among the following belongs to Kashmir?
- A. D B. C
- C. E D. A
- E. None of these
33. On which day E is going to college?

- A. Tuesday B. Monday
C. Thursday D. Friday
E. Saturday
34. Who among the following is going to college just before Holiday?
- A. D B. E
C. A D. F
E. No one
35. From which place D belongs to?
- A. Delhi B. Punjab
C. UP D. Gujarat
E. None of these

Directions (36 - 40): Study the table carefully and answer the questions given below.

Seven different boxes A, B, C, D, E, F and G contain seven different items namely viz., Doll, Ramen, Lotion, Scissors, Cheese, Cocoa and Camera are arranged one above the other. The box at the bottom of the arrangement is numbered 1, the above box is numbered 2 and so on. Each box has a different weight. Second heaviest box is kept at the top while the second lightest box is kept at the bottom. The box which contains Scissors is immediately below A. Only one box is between the Doll box and F. G is immediately above the Cocoa box. More than two boxes are above the box that contains Dolls. Box C is five times heavier than box D. Only two boxes are between the Ramen box and the box that contains Camera. Only two boxes are between the box which contains Scissors and the box which contains Dolls. B is immediately above E. The heaviest box is three times heavier than the box which is kept just above it and two times heavier than box B. The box filled with Lotion is neither at the top nor at the bottom of the arrangement. Box B does not contain Dolls. Only one box is between B and the box which is filled with Ramen. Box E is three times heavier than the box which is second from the top. B is placed above the Ramen box. C is placed immediately above F which is 3kg lighter than the box which contains scissors. Neither C nor G contains scissors. Box A is kept at an even numbered position below the box which contains Dolls. Box which contains camera weighs 2kg. The weight of the box which contains cocoa is equal to the sum of the weights of boxes which contain Scissors and Cheese.



36. As per the given arrangement, box D is related to the box which contains Cheese and box F is related to the box which contains Cocoa in a certain way. To which of the following boxes is box G related to the same way?
- The box which contains Cheese
 - The box which contains Camera
 - The box which contains Lotion
 - The box which contains Dolls
 - None of these
37. Which of the following pairs of boxes occupies the top, middle and bottom positions of the arrangement?
- C, A, E
 - C, E, F
 - A, E, G
 - B, F, D
 - C, E, D
38. What is the sum of the weights of the boxes which is at 3rd, 4th and 6th position?
- 22 kg
 - 10 kg
 - 18 kg
 - 51 kg
 - 37 kg
39. Which amongst the following is arranged exactly in between F and E?
- A
 - D
 - B
 - E
 - Other than those given as options
40. What is the weight of the box which contains Cocoa?
- 30 kg
 - 2 kg
 - 6 kg
 - 1 kg
 - None of the Above

Directions (41 – 45): Study the table carefully and answer the questions given below.

Seven square boxes of different areas are placed on seven shelves of different widths from bottom to top (such as bottom shelf is numbered as 1 and top is numbered as 7). Seven boxes of different areas contain different chocolates viz. 5-Star, Fuse, Hershey, Twix, Bounty, Snickers and Mars. Each box is of different colour viz. Indigo, White, Grey, Red, Violet, Brown, and Black. The width of each Shelf is different viz. 5, 9, 11, 15, 17, 21, 35, but not necessarily in the same order. The area of the box placed immediately below the top shelf is equal to the square of the width (which is a prime number) of the

corresponding shelf. The area of the box of Hershey is equal to the addition of the areas of the box of Snickers and the one which is placed on the bottom shelf. The shelf which contains the Grey box has the highest width. There are only two boxes between the box of Red colour and the box of Twix, which is placed at an even numbered shelf but below the 5th shelf. Boxes of Bounty and Fuse are not of Indigo colour and brown colour. The box of fuse has its side, equal to the width of the corresponding shelf minus 1 and has an equal number of shelves above and below it. The sides of the boxes of Snickers are 12 and mars is 5. The ratio of the widths of shelf on which Brown and Black box is equal to the ratio of the widths of shelf on which Grey and White box is kept. No box is placed above Brown box and it is neither Snickers nor Mars. The area of the box of 5-star is equal to the square of the width of the shelf on which black colour box is kept. The box of Bounty is placed immediately above the box of Hershey. The width of the shelf on which the Brown box is kept is multiple of seven and the width of the shelf on which Black box is kept is a perfect square. The width of the shelf on which the box of Hershey is placed is the least. Grey box is placed at the bottom and it does not contain Snickers. There are three boxes in between violet- and indigo-coloured boxes. Indigo coloured box is not placed above the box of Snickers. No two boxes have equal areas. The width of the shelf on which the Indigo box is kept is less than the width of the shelf on which White box is kept. The box which has its area equal to the square of seven is placed immediately below White box.

41. What will be the area of the box of Bounty?
- 25
 - 144
 - 81
 - 64
 - 289
42. How many boxes are placed between the boxes of Hershey and Mars?
- Three
 - Five
 - Four
 - Two
 - None of the above
43. What will be the difference between the widths of Violet and White box?
- 2
 - 14
 - 20
 - 8
 - None of the above



44. What is the colour of the box, which is placed immediately above the box, whose side is equal to the width of the corresponding shelf minus 1?
- A. Black B. Red
C. Indigo D. Brown
E. None of the above
45. Which of the following combinations is true regarding Snickers in pattern of 'Shelves- Colour- Area- Width'?
- A. 2-Indigo-144-11
B. 3-Indigo-144-11
C. 3-White-144-15
D. 6-Black-169-17
E. None of the above

Directions (46 - 50): Study the table carefully and answer the questions given below.

Eight boxes namely A, C, D, E, F, G, H and I are placed from top to bottom but not necessarily in the same order. They contain different types of books among Hindi, Geography, History, Math, Economics, Physics, Chemistry and Biology. Boxes are of different colours among orange, green, white and yellow colour. Exactly two boxes are there of each colour. Consider the top as 1st position and so on. The following information is known about them. There is a gap of one box between box E which is green and box C and both are in the top 4 positions when boxes are arranged from top to bottom. The box containing the Math book is kept immediately below White colour box and is of the same colour as E. Box D is kept somewhere between H and I. Box I is below D. The two yellow boxes are kept vertically adjacent to each other. History book is kept exactly between G and the box containing the Physics book. I doesn't contain Hindi books. There is a gap of one box between box F and box H, which is kept immediately below the box containing the Math book. Box F is below the box H. The box containing Biology book is placed at an even numbered place but is not placed at the bottom. The orange colour box which is kept at top contains either Hindi or Chemistry books. Box F is not of yellow colour. Box G which contains Economics books is of white colour. The box containing the Geography book is of white colour. D doesn't contain any Hindi or Biology books.

46. Which box contains the Geography book?
- A. A B. C

- C. E D. I
E. D
47. Which box is of white colour?
- A. D B. I
C. F D. A
E. E
48. Which box is placed at the top?
- A. The box which contains Chemistry book
B. C C. F
D. I E. A
49. Which box is placed at 8th position?
- A. A B. C
C. D D. I
E. E
50. Which subject book does box I contain?
- A. Chemistry B. Physics
C. Geography D. Math
E. Biology

Directions (51 -55): Study the table carefully and answer the questions given below.

Thirteen boxes of different colours are placed one above another in alphabetical order either from bottom or from top. Each box contains a different number of toffees which is multiple of 12. Maximum toffees in a box is 156. There are equal number of boxes are placed above as well as below M. Two boxes are placed between box M and the Brown coloured box. Five Boxes are placed between the Brown and Violet coloured box. Box which has 12 toffees is placed just below the Violet coloured box. White coloured box is placed just above Orange coloured box and just below the box which has 156 toffees. There are as many boxes placed above the Orange coloured box as below the box which has 12 toffees. Black coloured box is placed just above the box which has 60 toffees and just below the box which has 96 toffees. There are as many boxes placed between the boxes which have 12 and 48 toffees as between the boxes which have 48 and 96 toffees. Two boxes are placed between the Indigo coloured box which doesn't have 12 toffees and the Grey coloured box which is placed just below M.

51. If box I has 12 toffees, then which of the following is the Brown coloured box?
- A. P



- B. Box which have 48 toffees
C. J
D. Box which have 156 toffees
E. Can't be determined
52. What is the sum of the toffees of Indigo and Grey coloured boxes?
A. 252 B. 144
C. 108 D. 60
E. Can't be determined
53. If P is a Violet coloured box and the sum of toffees in box R and G is equal to the sum of toffees in box K and O then, what is the difference between the toffees of box O and R?

- A. 48 B. 72
C. 60 D. 84
E. Can't be determined
54. Which of the following coloured boxes have 48 toffees?
A. Orange B. Brown
C. Indigo D. Grey
E. None of these
55. Which of the following boxes is of Orange colour?
A. K B. R
C. P D. M
E. Q





ANSWER KEY

EXERCISE 1					EXERCISE 2				
1) B	20) D	39) A	58) B	77) B	1) D	12) E	23) C	34) B	45) C
2) C	21) C	40) B	59) E	78) D	2) D	13) C	24) D	35) D	46) D
3) A	22) A	41) C	60) A	79) B	3) E	14) C	25) C	36) C	47) B
4) E	23) E	42) D	61) C	80) D	4) C	15) E	26) C	37) E	48) E
5) D	24) C	43) E	62) D	81) D	5) D	16) E	27) D	38) C	49) D
6) C	25) D	44) A	63) C	82) B	6) A	17) C	28) B	39) C	50) C
7) B	26) D	45) B	64) C	83) E	7) D	18) C	29) B	40) A	51) A
8) E	27) C	46) E	65) D	84) C	8) D	19) C	30) B	41) E	52) B
9) E	28) A	47) C	66) D	85) A	9) A	20) E	31) C	42) A	53) C
10) D	29) C	48) D	67) D	86) B	10) C	21) D	32) B	43) A	54) D
11) C	30) E	49) D	68) C	87) B	11) A	22) C	33) E	44) B	55) E
12) D	31) D	50) B	69) D	88) E					
13) B	32) B	51) B	70) C	89) D					
14) A	33) B	52) B	71) C	90) E					
15) E	34) B	53) D	72) B	91) D					
16) E	35) C	54) D	73) A	92) A					
17) A	36) C	55) B	74) C	93) C					
18) B	37) A	56) A	75) D	94) E					
19) C	38) C	57) B	76) E	95) B					

LINEAR ARRANGEMENTS

Exercise – 1

Directions (1 – 5): Study the table carefully and answer the questions given below.

Eight friends A, B, C, D, E, F, G and H are seated in a row facing north. There are exactly two persons sitting to the left of B. Three people sit between A and H and neither of A or H is a neighbour of B. C sits to the left of A. Only one person is sitting between D and F and none of them is sitting at a corner seat. G is a neighbour of F.

- Who is sitting at the extreme right end?
A. A
B. H
C. E
D. F
E. None of these
- How many persons sit between G and C?
A. 1
B. 2
C. 3
D. 4
E. Cannot be determined
- Which of the following is a neighbour of A?
A. D
B. F
C. C
D. D and C
E. D and F
- Who is sitting to the immediate left of E?
A. F
B. D
C. A
D. C
E. None of these
- What is F's position with respect to C?
A. Fourth to the right
B. Fourth to the left
C. Second to the right
D. Second to the left
E. Cannot be determined

Directions (6 – 10): Study the table carefully and answer the questions given below.

Sunita, Sonu, Shubham, Shivam, Sneha, Seena, Sristi and Sakshi are seated in a straight line but not necessarily in the same order. Some of them are facing South while some are facing North. (NOTE: Same direction means that if one person is facing north then the other also faces north and if one person is facing south then the other person also faces south. Opposite direction means that if one person is facing north then the other person faces south and vice versa.) Sneha faces south. Only three people sit to the left of Sneha. Only two people sit between Sneha and Sonu. Seena sits third to the

right of Sakshi. Sakshi is an immediate neighbour of neither Sneha nor Sonu. Sakshi does not sit at any of the extreme ends of the line. Both the immediate neighbours of Shivam face north. Shivam is not an immediate neighbour of Sakshi. Only one person sits between Shivam and Sunita. Sunita faces the same direction as Sakshi. The immediate neighbours of Sonu face opposite directions (ie if one neighbour faces north then the other faces south and vice versa). Persons sitting at extreme ends face opposite directions. Shubham faces a direction opposite that of Shivam.

6. How many persons are seated between Sneha and Sunita?
 - A. Four
 - B. More than four
 - C. One
 - D. Three
 - E. Two
7. Which of the following pairs represents the persons seated at the two extreme ends of the line?
 - A. Shubham, Sneha
 - B. Sunita, Sristi
 - C. Sunita, Seena
 - D. Sonu, Shubham
 - E. Shubham, Sneha
8. Which of the following is true about Sristi with respect to the given arrangement?
 - A. Only two people sit between Sristi and Sonu.
 - B. Only one person sits to the right of Sristi.
 - C. None of the given options is true
 - D. Seena is one of the immediate neighbours of Sristi.
 - E. Shubham sits second to the right of Sristi
9. Who among the following sits on the immediate left of Shubham?
 - A. Sneha
 - B. Sunita
 - C. Sakshi
 - D. Sonu
 - E. Shivam
10. Four of the following five are alike in a certain way based on the given arrangement and so form a group. Which is the one that does not belong to that group?
 - A. Shubham
 - B. Seena
 - C. Sunita
 - D. Sakshi
 - E. None of these



Directions (11 – 15): Study the table carefully and answer the questions given below.

Twelve persons are sitting in two parallel rows containing six people in such a way that there is an equal distance between adjacent persons. In Row – I, Danvir, Danav, Devrat, Dayaal, Darshan and Darshit are seated (but not necessarily in the same order) and all of them are facing South. In Row –II, Dipen, Deepak, Dileep, Danny, David and Daman are seated (but not necessarily in the same order) and all of them are facing North. Therefore, in the given seating arrangement, each member seated in a row faces another member of the other row. All of them having a cars of different companies, viz Tata, Lexus, Toyota, Jaguar, Lamborghini, Mercedes-Benz, BMW, Nissan, Renault, Skoda, Audi and Dodge but not necessarily in the same order. Deepak faces one who sits third to the right of Darshan. Danny neither owns Jaguar nor Toyota. The person who owns Dodge, facing South Direction. Danav owns Skoda and faces the one who owns Mercedes-Benz. Only three persons sit between Darshan and Danav. The person who owns Jaguar car, facing North Direction. Darshit does not own Dodge. The persons who own Mercedes-Benz and BMW sit next to each other. The one who owns Nissan sits second to the right of Danvir. Darshit is neither an immediate neighbour of Danav nor Darshan. One of the immediate neighbours of Darshit faces Daman. The one who owns Renault car sits at one of the extreme ends of the line. Only three persons sit between Daman and the one who faces Devrat. The one who owns Tata car sits at one of the extreme ends of the line. There are two people sit between one who owns Dodge car and the one who owns Renault. Dipen sits second to the left of the one facing Danvir. The person who owns Lamborghini faces North Direction. Dileep is not an immediate neighbour of Deepak. Danav does not face David. There are three people sit between one who owns Tata car and the one who owns Jaguar. The person who owns Toyota faces one of the immediate neighbours of Dodge. There are two people sit between one who owns Nissan and Audi.

11. How many persons are seated between Danny and Daman?
- | | |
|------------------|----------|
| A. One | B. Three |
| C. Four | D. Two |
| E. None of these | |

12. Who amongst the following sit at the extreme ends of the rows?
- | | |
|-------------------|-------------------|
| A. Darshan, Danav | B. Dipen, Danvir |
| C. Darshan, David | D. Darshan, Danny |
| E. Dipen, Darshan | |
13. Who amongst the following faces Dipen?
- | | |
|----------------------|------------|
| A. Dayaal | B. Darshit |
| C. Devrat | D. Darshan |
| E. None of the above | |
14. Danvir is related to Toyota in the same way as Danny is related to Nissan based on the given arrangement. Then Darshit is related to?
- | | |
|----------------------|-----------|
| A. Toyota | B. Jaguar |
| C. BMW | D. Lexus |
| E. None of the above | |
15. Four of the following five are alike in a certain way based on the given arrangement and so form a group. Which is the one that does not belong to that group?
- | |
|-------------------|
| A. Danny, Danvir |
| B. Daman, Darshit |
| C. Dileep, Dayaal |
| D. Dipen, Danav |
| E. Dipen, Devrat |

Directions (16 – 20): Study the table carefully and answer the questions given below.

Twelve people are sitting in two parallel rows containing six people each such that they are equidistant from each other. In row 1, Anika, Bianca, Catlyn, Dhruv, Esha and Feroj are sitting facing South. In row 2, Parul, Qadir, Rudra, Saumya, Tanuj and Vikram are sitting facing North. Therefore, in the given seating arrangement, each member sitting in a row faces another member of the other row. Three persons sit between Catlyn and Dhruv. Either Catlyn or Dhruv sits at an extreme end of the line. The one who faces Dhruv sits third to the left of Rudra. Saumya faces the one who sits third to the left of Anika and he cannot sit adjacent to Rudra. The immediate neighbour of Qadir faces the immediate neighbour of Anika. Only one person sits between Parul and Tanuj, who is facing the one sitting on the immediate right of Esha. Neither Esha nor Feroj faces Rudra. Vikram and Qadir cannot sit adjacent to each other.

16. Who among the following faces Bianca?
- | | |
|----------|----------|
| A. Parul | B. Qadir |
| C. Tanuj | D. Rudra |



- E. Saumya
17. Who among the following sit at the extreme ends of the rows?
A. Dhruv, Qadir B. Tanuj, Feroj
C. Esha, Saumya D. Bianca, Tanuj
E. Feroj, Qadir
18. If Esha is related to Parul in the same way as Catlyn is related to Saumya, which of the following is Anika related to, following the same pattern?
A. Vikram B. Rudra
C. Qadir D. Tanuj
E. Cannot be determined.
19. How many persons are sitting between Esha and Feroj?
A. None B. One
C. Two D. Three
E. Four
20. Four of the following five are alike in a certain way based on the given arrangement and so form a group. Which is the one that does not belong to that group?
A. Parul–Dhruv B. Qadir–Anika
C. Qadir–Feroj D. Saumya–Bianca
E. Tanuj– Anika

Directions (21 – 25): Study the table carefully and answer the questions given below.

P, Q, R, S, T, U, V, W and X are sitting in a row facing north. V sits between Q and R. U is closer to Q than R. S sits three places to the right of T. W is at an equal distance from X and T. P is two places to the left of S and next to W. T sits exactly in the centre. U and X sit on the extreme corners of the row

21. How many people sit between S and V?
A. 3 B. 0
C. 2 D. 1
E. 4
22. If observed, which pair does not sit on consecutive chairs?
A. U – Q B. P – Q
C. S – W D. T – R
E. None of these
23. Who sits exactly between P and R?
A. P B. Q
C. R D. S
E. T
24. Who sits fourth from the left end?

- A. S B. T
C. R D. P
E. None of these
25. If the positions of W and Q are interchanged and if the positions of U and T are interchanged as well, then who will sit between R and W?
A. U B. V
C. S D. T
E. None of these

Directions (26 – 30): Study the table carefully and answer the questions given below.

A, B, C, D, E and F are six people sitting in a row facing north. E sits fourth from the right end. D sits second to the right of E. A and C are not the immediate neighbours of D. B sits at one of the extreme ends.

26. Who sits at the centre?
A. D B. A
C. C D. E
E. Cannot be determined.
27. Who sits at the extreme left end?
A. B B. C
C. A D. None of these
E. Cannot be determined.
28. When counted from the right end, who sits third?
A. E B. F
C. D D. C
E. Cannot be determined.
29. Who are the immediate neighbours of F?
A. B – D B. E – C
C. A – C D. None of these
E. Cannot be determined.
30. Who sits second from the left end?
A. E B. A
C. D D. Either A or C
E. Cannot be determined.

Directions (31 – 35): Study the table carefully and answer the questions given below.

Saina, Neha, Harsh, Nehal, Sakshi and Neeta attend a ceremony. They sit in the same row facing the north. Each of them wears a different colour shirt namely red, blue, white, black, yellow and orange but not in that order. The person who wears the black shirt sits at an extreme end. Nehal sits fourth



to the right of Saina who wears black. Harsh wears blue but does not sit adjacent to Saina. Only one person sits between Sakshi and harsh. Neeta sits third from the left end and wears white. No person sitting between Neeta and Harsh wears yellow.

31. If the chairs were numbered from 1 to 6 from left to right, who would sit on the 6th chair?
- | | |
|--------------------------|----------|
| A. Sakshi | B. Neha |
| C. Saina | D. Harsh |
| E. Cannot be determined. | |
32. Who wore a yellow shirt?
- | | |
|------------------|----------|
| A. Neeta | B. Nehal |
| C. Sakshi | D. Neha |
| E. None of these | |
33. Who sits to the immediate right of Neeta?
- A. Harsh
B. The one who wears black
C. The one who wears red
D. The one who wears orange
E. None of these
34. Who wears the colour that starts with a vowel?
- | | |
|-------------------------|-----------|
| A. Nehal | B. Sakshi |
| C. Harsh | D. Saina |
| E. Cannot be determined | |
35. How many people sit between Neha and Harsh ?
- | | |
|------|------|
| A. 1 | B. 2 |
| C. 4 | D. 3 |
| E. 0 | |

Directions (36 – 40): Study the table carefully and answer the questions given below.

A, B, C, D, E, F and G are seven classmates who sit in a row facing the north direction but not in the same order. G is second to the right of F who sits at an extreme end. B and D are at an equal distance from the extreme ends but neither of them sits at an extreme end. C sits at the centre. B is not an immediate neighbour of A. A does not sit at any of the extreme ends. F is one of the neighbours of B.

36. Who sits at the extreme end from the right?
- | | |
|------|------|
| A. D | B. C |
| C. A | D. E |
| E. G | |
37. How many people sit between A and B?

- | | |
|------|------|
| A. 3 | B. 1 |
| C. 0 | D. 2 |
| E. 4 | |
38. Who sits at the centre?
- | | |
|------|------|
| A. D | B. G |
| C. A | D. F |
| E. C | |
39. What is the position of G from the left end?
- | | |
|--------------------|--------------------|
| A. 4 th | B. 5 th |
| C. 3 rd | D. 1 st |
| E. None of these | |
40. Who are the immediate neighbours of D?
- | | |
|------------------|----------|
| A. D – E | B. E – A |
| C. A – C | D. B – A |
| E. None of these | |

Directions (41 – 45): Study the table carefully and answer the questions given below.

P, Q, R, S and T are five friends who sit on a bench facing the north. The pair sitting at the extreme ends is P and Q. S sits two places to the left of P. Q is not an immediate neighbour of R.

41. Who sits exactly at the centre?
- | | |
|------|------------------|
| A. R | B. Q |
| C. P | D. Either R or Q |
| E. S | |
42. When counted from the right end what is the position of T?
- | | |
|--------------------|--------------------|
| A. 3 rd | B. 1 st |
| C. 4 th | D. 5 th |
| E. 2 nd | |
43. Who sits between Q and S?
- | | |
|------------------|------------------|
| A. R | B. T |
| C. P | D. Either R or P |
| E. None of these | |
44. Who sits at the extreme left end
- | | |
|------|------|
| A. Q | B. P |
| C. S | D. T |
| E. R | |
45. Four out of the five options are similar in a certain way. Select the option that does not fit by the same logic.



- A. T – R
C. S – P
E. None of these
- B. Q – S
D. S – R

Directions (46 – 50): Study the table carefully and answer the questions given below.

M, N, O, P, Q, R, S sit in a row facing the west. S sits between Q and R. N sits at an extreme end. P is second from the north end. N is the neighbour of T. O is to the immediate right of P.

45. Who sits second to the right of R?
A. P
C. S
E. Cannot be determined
47. Who are the immediate neighbours of P?
A. N – S
C. M – N
E. Cannot be determined
48. Who sits at the centre?
A. R
C. P
E. None of these
49. Who sits fourth from the north end?
A. S
C. R
E. None of these
50. How many people sit between S and P?
A. 3
C. 2
E. 0
- B. Q – S
D. S – R
B. O
D. N
B. R – O
D. M – T
B. M
D. Q
B. M
D. Either N or R
B. 4
D. 1

Directions (51 – 55): Study the table carefully and answer the questions given below.

P, Q, R, S and T are five people who sit in a row facing the south direction. S sits such that only two people sit to its right. Q and R are not the immediate neighbours of S. T is second from the right end. R does not sit to the right of S.

51. Who sits second from the left end?
A. S
C. T
E. None of these
52. Who sits exactly in the centre?
A. P
C. R
- B. P
D. R
B. T
D. S

E. Q

53. How many people sit between P and R?

- A. 1
C. 2
E. 4
- B. 0
D. 3

54. Who sits to the immediate right of T?

- A. R
C. Q
E. Cannot be determined
- B. S
D. P

55. Select the pair that does not fit in the group.

- A. Q – S
C. S – R
E. None of these
- B. P – T
D. P – S

Directions (56 – 60): Study the table carefully and answer the questions given below.

Five friends A, B, C, D and E sit in a row facing the north. Each of them likes pizza, burger, fries, nachos and tacos but not in that order. The one who likes nachos sits in the centre. A sits at an extreme end and likes burgers. D likes pizza and sits second from the right end. E who likes tacos sits third to the left of D.

56. Who likes fries?

- A. B
C. E
E. Cannot be determined
- B. C
D. Either C or B

57. Who sits at the extreme right end?

- A. E
C. C
E. None of these
- B. A
D. D

58. How many people sit between C and the one who eats burgers?

- A. 2
C. 1
E. Cannot be determined
- B. 3
D. 0

59. Who likes nachos?

- A. A
C. C
E. Cannot be determined
- B. B
D. D

60. Who sits at the extreme left end?

- A. A
C. B
- B. E
D. None of these



E. Cannot be determined

Directions (61 – 65): Study the table carefully and answer the questions given below.

M, N, O, P, Q, R and S are seven people who sit in a row facing the south. N and R sit next to each other. Q and S have the same number of people between them as N and P. M sits second to the left of O. S sits at the centre. O sits at one of the extreme ends. N is to the immediate left of S.

61. Who sits between R and S?
A. O
B. N
C. S
D. Either O or N
E. None of these
62. What is the position of R from the right end?
A. First
B. Third
C. Second
D. Fourth
E. Sixth
63. Who sits at the extreme left end?
A. N
B. Q
C. O
D. None of these
E. Cannot be determined
64. How many people sit between M and Q?
A. 0
B. 3
C. 2
D. 4
E. Cannot be determined
65. The position of which pair cannot be determined from the information given above?
A. Q-R
B. R-P
C. N-P
D. P-Q
E. None of these

Directions (66 – 70): Study the table carefully and answer the questions given below.

Alia, Myra, Zoha, Swara, Jiya, Siya and Kaira are seven cousins who attend a family function. They all use seven different brands of mobiles namely Samsung, Apple, Oppo, Vivo, Motorola, Poco and Nokia. They sit in a row and face the north. Zoha sits at one of the extreme ends and uses Nokia. Kaira sits fourth from the left end and Swara sits to her immediate right. Four people sit between Jiya and Zoha. Siya and Alia are not the neighbours of Zoha. The person who sits at the centre uses Poco. Jiya uses Oppo and neither of her neighbours use Apple or Samsung. The person sitting to the immediate left of Kaira uses Motorola.

66. Who sits at the centre?
A. Siya
B. Swara
C. Myra
D. Zoha
E. None of these
67. What is the position of the Vivo user?
A. 3rd from the right end
B. 4th from the left end
C. Centre
D. Extreme right end
E. Extreme left end
68. Which brand does Alia use?
A. Motorola
B. Vivo
C. Samsung
D. Motorola or Samsung
E. Cannot be determined.
69. Select the correctly matched pair.
A. Kaira – Motorola
B. Siya – Vivo
C. Zoha – Apple
D. Jiya – Oppo
E. None of these
70. Who sits third from the right end?
A. The one who uses Apple
B. The one who uses Samsung
C. Myra
D. Swara
E. None of these

Directions (71 – 75): Study the table carefully and answer the questions given below.

M, N, O, P, Q, R, S, T, U and V are sitting in two rows. Each row has five people such that the top row faces the south and the bottom row faces the north. U does not sit at the centre but sits second to the right of M. Q sits to the immediate right of P who sits at a corner. R does not face the south but sits third to the left of N who does not sit adjacent to O. V and R are at an equal distance from T. O faces north and does not sit at an extreme end

71. What is the position of M with respect to P?
A. Immediate right
B. Second to the left
C. Immediate left



- D. Second to the right
E. None of these
72. Who are the immediate neighbours of S?
A. O – P B. U – M
C. N – R D. T – V
E. V – R
73. Who sits opposite the person who is second to the right of O?
A. P B. Q
C. R D. S
E. T
74. Who sits exactly opposite to V?
A. N B. O
C. M D. P
E. Q
75. Select the option that does not fit in the group.
A. P B. N
C. O D. M
E. Q

Directions (76 – 80): Study the table carefully and answer the questions given below.

Twelve members of a family are sitting in two opposite sides of rectangular dining table for a dinner. Two parallel rows of chairs containing six people each are set in such a way that there is an equal distance between adjacent persons. In row 1, M, N, C, D, E and F are seated and all of them are facing south. In row 2, P, G, R, Y, T and O are seated and all of them are facing north, but not necessarily in the same order. Each of them likes different types of food, viz Indian, African, English, French, German, Chinese, Italian, Mexican, Thai, Spanish, Korean and Russian, but not necessarily in the same order. C, who likes German food, sits third to the left of N. C is not an immediate neighbour of either E or M. P, who likes Korean food, sits third to the right of Y. Neither P nor Y sits at the extreme ends. E, who likes Indian food, faces the one who likes Mexican food. F, who likes English food, faces O, who sits second to the left of T and O does not like French food. T is not an immediate neighbour of Y. Only two people sit between G and T, who like Russian and Thai food respectively. D likes neither African nor French food and sits on the immediate left of the person who likes German food. M, who likes Chinese food, does not face R. The one who likes Spanish food sits

second to the right of the person who faces the one who likes African food. N does not like African food

76. Who faces the one who likes African food?
A. P B. Y
C. R D. F
E. None of these
77. Which of the following food does Y like?
A. Italian B. French
C. African D. Mexican
E. None of these
78. Who sits diagonally opposite to T?
A. D B. C
C. F D. E
E. None of these
79. Which of the following person likes Mexican Food?
A. P B. Y
C. R D. T
E. None of these
80. Who sits second to the right of the person, who faces the one, who likes African Food?
A. B B. N
C. A D. C
E. None of these

Directions (81 – 85): Study the table carefully and answer the questions given below.

P, Q, R, S, T, U, V and W live in an eight storied building. No two people live on the same floor. The top most floor is numbered 8 whereas the lowest floor is numbered as 1. Each person likes a different colour namely red, blue, pink, white, black, orange, yellow and green but not in that order. U lives immediately above the person who lives on the first floor. T does not live on the topmost floor. The person who likes white lives immediately below P. S does not like pink. Only one person lives between P and the person who likes pink. W who likes the colour that starts with a vowel lives on an even numbered floor immediately above S. Q lives on an odd numbered floor and the person who likes red lives on an even numbered floor below the fifth floor. Only one person lives between T who likes blue and the one who likes white. R likes yellow and lives on the seventh floor.

81. What colour does Q like?
A. Red B. White
C. Pink D. Yellow



- E. Black
82. The person whose immediate neighbour is T likes which colour?

A. Pink B. Red
C. Blue D. Black
E. Yellow

83. The person who lives below W likes which colour?
- A. Blue B. Black
C. Green D. Pink
E. Cannot be determined

84. Who lives on the topmost floor?
- A. T B. U
C. V D. W
E. Q

85. Four of the five options are similar in a certain way. Select the option that does not fit in the group.

A. QU B. TW
C. SP D. VR
E. PQ

Directions (86 – 90): Study the table carefully and answer the questions given below.

A, B, C, D and E are five teachers who teach five different subjects namely Science, History, Geography, English and Drama in a school. Monday is considered as the first day of the week while Sunday is considered the last day of the week. The school stays closed on Sunday and one more day of the week. Some additional information is known.

D did not teach Geography. A teaches Drama on the fourth day of the week. The one who teaches Geography does not take a class before Friday. Only two teachers teach before A. No subject was taught before English. C taught History on Friday. B teaches Science immediately after the day off.

86. Which subject was taught on Saturday?
- A. Drama B. History
C. Science D. Geography
E. English
87. How many subjects were taught between English and History?
- A. 0 B. 4
C. 3 D. 2
E. Either 1 or 3

88. On which day does the school remain closed other than Sunday?

A. Wednesday B. Monday
C. Thursday D. Tuesday
E. Cannot be determined

89. Who taught English?

A. E B. C
C. D D. B
E. A

90. Select the correctly matched pair.

A. B – Drama B. C – English
C. A – History D. E – Science
E. None of these

Directions (91 – 95): Study the table carefully and answer the questions given below.

Twelve people are sitting in two parallel rows. In row 1, Avikshit, Avinash, Ayush, Atulya, Avanish and Atmaja are sitting facing towards south. In row 2, Aadesh, Aabheer, Aafreen, Aakash, Aashish and Abhilash are sitting facing towards north. They are sitting in a manner that each person sitting in row 1 faces exactly one person sitting in row 2. Each of these twelve persons except two has a different favorite colour.

- Aabheer likes pink and is sitting opposite to the one who is second to the left of Ayush who likes Grey.
- Neither Aabheer nor Ayush sits at any of the extreme end.
- Aakash and the one who likes Green sit at extreme end of the row, but they do not face each other.
- Only three people sit between Aafreen and the person who likes Blue.
- Aafreen faces Avanish, who likes Red.
- Atmaja sits second to the right of Atulya, who likes Brown.
- Four people sitting at extreme end like white, green, blue and purple color.
- Aadesh likes black and is sitting third to the left of Aafreen
- Avinash does not face Aabheer while Aashish faces Atulya
- Aakash is a neighbour of Aadesh while Abhilash is not
- There are three people between the two who like green and grey
- The one who likes yellow is sitting immediate left of the person who likes purple



91. Who is sitting second to the right of the one who faces Atulya?

- | | |
|------------|------------|
| A. Aadesh | B. Aabheer |
| C. Aafreen | D. Aakash |
| E. Aashish | |

92. Find the odd one out?

- | | |
|-----------|-------------|
| A. Atmaja | B. Avinash |
| C. Aakash | D. Abhilash |
| E. Atulya | |

93. Who is sitting between Atulya and the person who likes red colour?

- | | |
|------------------|------------|
| A. Avikshit | B. Avinash |
| C. Ayush | D. Avanish |
| E. None of these | |

94. What is the favourite color of Aashish?

- | | |
|------------------|----------|
| A. Blue | B. Black |
| C. White | D. Grey |
| E. None of these | |

95. Which of the following combination between person and color is incorrect?

- | | |
|---------------------|------------------|
| A. Aadesh-Black | B. Atulya -Brown |
| C. Ayush -Grey | D. Avanish-Red |
| E. All are correct. | |

Exercise – 2

Directions (1 – 5): Study the table carefully and answer the questions given below.

Twelve people P, Q, R, S, T, U, M, N, O, E, F and G attend a family function and sit in two parallel rows. Only six of them face the north. Each person faces exactly one person. E is third to the right of T. R who is an immediate neighbour of E faces north. G and U do not sit in the same rows. Q is diagonally opposite to S. T sits at one of the ends. F is second to the left of S who sits at one of the extreme ends. O is to the immediate left of the person who sits exactly opposite to T. G sits exactly opposite to N. P is to the immediate left of N.

- How many people sit to the right of M?
A. 3 B. 2
C. 0 D. 1
E. 4
- Who sits exactly opposite to P?
A. R B. S
C. Q D. M
E. N
- What is the position of F w.r.t P?
A. Second to the left B. Third to the left
C. Immediate left D. Third to the right
E. Either a or b
- Select the option that does not belong to the group.

- | | |
|------------------|------|
| A. S | B. T |
| C. P | D. R |
| E. None of these | |

5. How many people sit between F and P?

- | | |
|------------------|------|
| A. 0 | B. 2 |
| C. 1 | D. 3 |
| E. None of these | |

Directions (6 – 10): Study the table carefully and answer the questions given below.

Neha, Naira, Niraj, Neeta, Namit, Nimish and Naaz are friends who go to college. The timing of their arrival and departure was noted. Neha left after Nimish. Neeta was the second person to leave and Neha was not the second person to arrive. Neeta arrived immediately before Nimish who arrived fourth but left after Naaz. Namit was the first person to arrive and the fourth person to leave. Neither Niraj nor Naira was the last person to arrive. Naaz arrived immediately before Neha. Niraj was not the last person to leave. Niraj left immediately after Neha.

- Who left immediately after Neeta?
A. Naaz B. Niraj
C. Nimish D. Neha
E. Naira
- Who was the penultimate person to arrive?



- A. Naaz B. Naira
C. Neha D. Nimish
E. Cannot be determined
8. When did Nimish arrive?
A. Fourth B. Third
C. Last D. Either first or third
E. Second
9. How many people arrived between Nimish and Naaz?
A. 0 B. 2
C. 3 D. 1
E. None of these
10. Who left immediately after Nimish ?
A. Naira B. Neha
C. Nimish D. Neeta
E. None of these

Directions (11 – 15): Study the table carefully and answer the questions given below.

A, B, C, D and E are five people who live in a building. The floors are numbered from 5 to 1 from top to bottom. They have pizza, burgers, coffee, tea and tacos for breakfast. D lives on an even numbered floor below 4th floor and has coffee. The person who has tacos and A have only one person in between. The number of people living below B who has Tea and the number of people living above C are equal. The people who like pizza and burgers live on consecutive floors. B doesn't live on the lowermost floor.

11. Who has burgers?
A. D B. C
C. E D. A
E. Cannot be determined
12. Who lives on the second floor?
A. The one with coffee B. A
C. The one with pizza D. E
E. None of these
13. How many people live between the one who has Tea and the one who has Tacos?
A. 2 B. 1
C. 0 D. 3
E. Cannot be determined
14. Select the option that does not fit in the group.
A. BD B. CD
C. AE D. DC

E. DA

15. On which floor does A live?
A. 2 B. 1
C. 4 D. 5
E. 3

Directions (16 – 20): Study the table carefully and answer the questions given below.

A, B, C, D, E, F, G and H are eight people who sit in a row facing north for a photoshoot. Each person was born on a different day of the week. H sits between D who was born on a Wednesday and E and neither of them sit at an extreme end. The person sitting third from the right end and the person sitting fourth to the left of him were born on same days. C was born on Monday and F was not born on either Wednesday or Thursday. A sits third to the left of E who was born on a Sunday. F sits at an extreme end. Two people sit between D and B who was born on Saturday. Thursday was the only day on which two people were born.

16. Who sits second to the left of the one born on Saturday?
A. D B. H
C. E D. G
E. C
17. Who are the immediate neighbours of D?
A. C – H B. D – G
C. A – H D. G – E
E. Cannot be determined.
18. Who were born on the same day?
A. A – E B. C – D
C. G – H D. A – H
E. Cannot be determined.
19. Who sits at the extreme left of the row?
A. A B. F
C. D D. G
E. Cannot be determined.
20. On which day were two people born ?
A. Saturday B. Sunday
C. Thursday D. Friday
E. Cannot be determined.

Directions (21 – 25): Study the table carefully and answer the questions given below.

Five boxes A,B,C,D and E of red, blue, brown, yellow and black were kept next to each other facing the north. Box E was not to the right of box C. The red box was to the immediate right of the blue box. E was either blue or black. Box A was at an extreme end. Box D was kept second from the left end which was not of either blue or yellow colour. C was third to the right of the black colour box which was A.

21. Which box was kept at the extreme right end?
A. A
B. C
C. D
D. B
E. E
22. Which box was kept to the immediate left of the blue box?
A. The one kept second to the right of D.
B. D
C. The black box
D. B
E. None of these
23. Select the correctly matched pair.
A. E – Red
B. C – Yellow
C. D – Black
D. B – Red
E. None of these
24. Who sits at the center?
A. A
B. D
C. E
D. B
E. C
25. Who are the immediate neighbors of the blue box?
A. E – C
B. A – C
C. E – A
D. B – C
E. C – D

Directions (26 – 30): Study the table carefully and answer the questions given below.

A to J are ten people who attend a wedding. They sit in two different rows. A, B, C, D and E sit in the first row facing north and F, G, H, I and J sit in the second row facing south. D does not sit at any extreme ends. C and G sit exactly opposite to each other but not on the extreme ends. I and E sit exactly opposite to each other. Only one person sits between H and F and one of them sits at an extreme end. B sits to the immediate right of the person who faces H. A does not sit to the extreme right. F does not sit to the left of H.

26. Who sits exactly opposite the one who sits at the centre of the row facing north?
- A. J B. H
C. I D. Either J or I
E. None of these
27. Who sits third to the left of the one facing C?
- A. H B. F
C. J D. I
E. None of these
28. What is the position of B ?
- A. Extreme right
B. Second from the right end
C. Extreme left
D. Second from the left end
E. Centre
29. Select the correctly matched pair.
- A. J – D B. F – C
C. I – B D. A – F
E. G – D
30. Four out of the five options are similar in a certain way. Select the option that does not fit into the group.
- A. C B. E
C. F D. I
E. A

Directions (31 – 35): Study the table carefully and answer the questions given below.

Ten people A, B, C, D, E, P, Q, R, S and T are seated in two parallel rows. A, B, C, D, E are seated in row 1 and facing south. P, Q, R, S and T are seated in row 2 and facing north. They like ten different colours namely red, blue, black, yellow, orange, brown, green, grey, purple and white. The one who likes purple faces the one who sits immediately to the right of the one who likes blue. Only two people sit between E and A. S likes yellow and sits at one of the extreme ends of the row. The one who likes brown sits diagonally opposite to the one who likes red. The one who likes black faces north. A likes orange and sits at the extreme right end of the row. There are only two people sitting between A and the one who likes green. Q sits third to the right of P who sits at one of the extreme ends. Only two people sit between the one who likes brown and the one who likes white. The one who likes white is not an immediate neighbour of A. The one who likes purple faces the person who



likes grey. T is not an immediate neighbour of the one who likes brown. C is not adjacent to the one who likes blue. B likes blue colour.

31. What is the position of the person who likes black colour?
A. Extreme left B. Extreme right
C. Second to the right D. Second to the left
E. Centre
32. Who likes white?
A. S B. R
C. Q D. P
E. None of these
33. Who sits exactly opposite to Q?
A. A B. B
C. D D. E
E. C
34. Who sits second to the right of R?
A. Q B. T
C. S D. P
E. None of these
35. Who sits to the immediate left of D?
A. B B. E
C. A D. Either A or E
E. C

Directions (36 – 41): Study the table carefully and answer the questions given below.

Five kids S, T, U, V and W are sitting in a row facing north and like five different cartoons namely Doraemon, Noddy, Shinchan, Peppa pig and Perman. V sits at an extreme end and likes Peppa Pig. S sits at the centre. The one who likes Noddy sits two places to the left of the one who likes peppa pig. W likes Shinchan sit second to the left of S. T who sits third to the right of W does not like Perman.

36. Which cartoon does T like?
A. Noddy B. Perman
C. Shinchan D. None of these
E. Cannot be determined
37. Who sits second to the right of W?
A. V B. S
C. T D. U
E. W
38. What is the position of V w.r.t U?

- A. Immediate right
B. Immediate left
C. Third to the right
D. Third to the left
E. Cannot be determined

39. Select the correctly matched pair.
A. S – Noddy B. U – Doraemon
C. T – Perman D. V – Noddy
E. W – Doraemon
40. Who likes Perman?
A. W B. S
C. U D. V
E. T
41. Who sits at the extreme right end?
A. T B. V
C. U D. S
E. W

Directions (42 – 46): Study the table carefully and answer the questions given below.

Nine persons – C, D, B, A, J, F, G, H and K – are sitting in a straight-line facing north, but not necessarily in the same order. B is fourth to the left of G; F is fourth to the right of C and second to the left of K, who is fifth to the right of A. D is not an immediate neighbour of either K or B. There are only three persons between J and A. G is second to the right of C.

42. Who sits at the centre ?
A. C B. A
C. G D. D
E. F
43. Who sits second to the right of F?
A. K B. G
C. A D. D
E. B
44. Who sits to the extreme left end?
A. H B. C
C. B D. A
E. G
45. Who are the immediate neighbours of C?
A. B-G B. D-F
C. H-A D. J-K
E. None of these



46. Four out of the five options are similar in a certain way. Select the option that does not fit in the group.

- | | |
|--------|--------|
| A. B-C | B. D-J |
| C. H-A | D. G-J |
| E. A-D | |

Directions (47 – 51): Study the table carefully and answer the questions given below.

Eleven students A, B, C, D, Q, R, S, T, U, V and W are sitting in a row of the class facing north. D, who is to the immediate left of R, who is third to the right of C. A, is second to the right of Q, who is at one of the ends. V is the immediate neighbour of A and B and third to the left of S. T is to the immediate left of D and third to the right of U.

47. Who is sitting in the middle of the row?

- | | |
|------------------|------|
| A. O | B. U |
| C. B | D. S |
| E. None of these | |

48. Which of the following group of friends is sitting to the right of S?

- | | |
|------------------|---------|
| A. UBVA | B. UCTQ |
| C. CTQR | D. CTDR |
| E. None of these | |

49. Which of the following sits to the immediate left of A?

- | | |
|---------|------|
| A. W | B. V |
| C. B | D. U |
| E. None | |

50. Which of the following statements is true in the above sitting arrangement?

- There are three students between Q and S.
- S and C are neighbours who are sitting to the immediate right of T.
- B is sitting b/w V and U
- W is sitting b/w A and V
- None of these

51. If Q and D, C and B, A and T and W and R interchange their positions, which of the following pair of students is sitting at the end?

- | | |
|------------------|------------|
| A. D and Q | B. Q and R |
| C. D and W | D. W and R |
| E. None of these | |

Directions (52 – 55): Study the table carefully and answer the questions given below.

Seven persons A, B, C, D, Q, R and Y are standing in a straight line facing north at equal distance but not necessarily in the same order. Each of them have a different profession –

Probationary officer, Journalist, Clerk, Engineer, Businessman, Manager and Singer but not necessarily in the same order.

Y is standing at the fifth position to the left of C. Journalist is standing at the third position to the right of Y. R is standing at the fifth position to the right of A. Q is standing second to the left of B. Engineer is standing at the second position to the left of D. Three persons are sitting between Engineer and Singer. Clerk is to the immediate left of the Engineer. Businessman is to the immediate right of the manager.

52. Who among the following is sitting to the right of the Manager?

- | | |
|------------------|-------------------------|
| A. C | B. D |
| C. Businessman | D. Probationary officer |
| E. None of these | |

53. Who among the following are the immediate neighbours Singer?

- Clerk and Businessman
- Probationary officer and Businessman
- Journalist and Probationary officer
- Businessman and Journalist
- None of these

54. Who among the following is sitting exactly in the middle of the row?

- | | |
|------------|----------------|
| A. R | B. Businessman |
| C. C | D. Journalist |
| E. Manager | |

55. Who is sitting at the left end of the row?

- | | |
|------------------|------|
| A. A | B. B |
| C. C | D. D |
| E. None of these | |

56. How many people are there to the left of Journalists?

- | | |
|------------------|---------|
| A. One | B. Two |
| C. Three | D. Four |
| E. None of these | |



ANSWER KEY

EXERCISE 1					EXERCISE 2			
1) C	20) C	39) C	58) E	77) B	1) E	15) E	29) D	43) A
2) D	21) E	40) B	59) E	78) D	2) C	16) B	30) A	44) C
3) E	22) B	41) E	60) B	79) C	3) D	17) C	31) E	45) C
4) E	23) E	42) C	61) B	80) B	4) D	18) C	32) C	46) D
5) A	24) C	43) B	62) E	81) B	5) B	19) B	33) D	47) B
6) D	25) B	44) A	63) D	82) A	6) C	20) C	34) A	48) D
7) B	26) E	45) D	64) A	83) E	7) A	21) D	35) A	49) A
8) C	27) E	46) E	65) E	84) C	8) A	22) B	36) D	50) C
9) C	28) B	47) E	66) E	85) B	9) D	23) E	37) B	51) C
10) B	29) D	48) E	67) E	86) D	10) E	24) C	38) C	52) B
11) D	30) D	49) A	68) E	87) D	11) E	25) E	39) A	53) C
12) E	31) D	50) D	69) D	88) D	12) A	26) B	40) C	54) B
13) C	32) D	51) B	70) D	89) C	13) D	27) D	41) B	55) A
14) B	33) E	52) D	71) D	90) E	14) A	28) B	42) C	56) D
15) E	34) E	53) B	72) B	91) C				
16) D	35) D	54) C	73) B	92) E				
17) B	36) D	55) D	74) D	93) A				
18) B	37) D	56) D	75) A	94) E				
19) D	38) E	57) B	76) D	95) E				



MIXED PUZZLES

Exercise – 1

Directions (1 – 5): Study the table carefully and answer the questions given below.

Eight persons A, B, C, D, E, F, G and H attend seminars in four different months January, April, November and December of the same year. Seminar was conducted on either 15th or 25th of the month. Some additional information is known about them – Only one person attends the seminar between H and F. Both C and G attend the seminar on the 15th of different months. G does not attend the seminar in December. G and D attend the seminar in the same month. B attends the seminar on the 15th of the month which has only 30 days. H and E attended the seminar in the same month before B, but not in the month of April. H attends the seminar after E. No one attends the seminar after A.

- Who attends the seminar on 25th of April?
 A. B
 B. H
 C. F
 D. G
 E. None of these
- How many people attended the seminar between B and C?
 A. 4
 B. 1
 C. 2
 D. 3
 E. None of these
- Who attended the seminar exactly after G?
 A. F
 B. C
 C. D
 D. A
 E. None of these
- Select the odd one out.
 A. D
 B. G
 C. B
 D. A
 E. None of these
- Who attended the seminar on 15th of December?
 A. A
 B. G
 C. D
 D. None of these
 E. Can't be determined

Directions (6-10):

Ten persons are sitting in two parallel rows containing 5 persons each. In the 1st row E, F, G, H and I are sitting and all of them are facing south. In the 2nd row T, U, V, W and Z are sitting and all of them are facing towards the north direction but not necessarily in the same order. There are four females and six males. Each member sitting in a row faces another

member of the other row. Some additional information is given about them – Z sits second to the left of the person who faces I. E is the maternal aunt of I and faces the person who is on the immediate left of Z. T sits at the left end of the row. Z is a female while I is a male. E and H are not immediate neighbours. The one who is an immediate neighbour of H is facing W. F does not sit at the extreme ends of the row who is the sister of Z. V and Z are immediate neighbours. Only one person sits between I and G who is a female.

- Who sits at the centre of the first row?
 A. F
 B. V
 C. I
 D. W
 E. None of these
- How many females sit in the second row?
 A. 3
 B. 2
 C. 1
 D. 0
 E. None of these
- Who sits to the immediate right of W?
 A. U
 B. V
 C. Z
 D. T
 E. None of these
- Select the odd one out.
 A. T
 B. V
 C. I
 D. F
 E. None of these
- Who sits second to the right of F?
 A. E
 B. H
 C. W
 D. Z
 E. None of these

Directions (11-15): Study the table carefully and answer the questions given below.

Six football Players Mane, Salah, Yamal, Jude, Jamal and Robert Play for different clubs Liverpool, Madrid, Barcelona, Roma, Juventus and PSG not necessarily in the same order. Each of them stays in a different country Portugal, Italy, England, Turkey, Spain and Morocco again in no specific order

- The person who plays for Barcelona stays in Italy
- Neither Yamal nor Mane plays for Liverpool or Juventus.
- Mane stays in Morocco.
- Robert stays neither in Italy nor in Turkey.



5. Salah plays for PSG and he neither stays in Turkey nor in Spain

6. Jamal plays for Madrid and stays in Portugal.

11. Mane plays for which club?
 A. Liverpool B. Roma
 C. Barcelona D. Juventus
 E. PSG
12. Who plays for Barcelona.
 A. Salah B. Robert
 C. Yamal D. Jude
 E. Jamal
13. Where does Salah stay?
 A. Turkey B. Portugal
 C. Morocco D. England
 E. Spain
14. Who Stays in Italy?
 A. Jude B. Yamal
 C. Salah D. Robert
 E. Mane
15. Who plays for Liverpool?
 A. Mane B. Robert
 C. Jude D. Jamal
 E. Cannot be determined

Directions (16-20): Study the table carefully and answer the questions given below.

Eight persons – M, N, O, P, Q, R, S and T have seminars in March, July, September and November with two seminars in each month. The seminar is scheduled either on 23rd or 29th of the month. Some additional information is known about them – Seminar of T is immediately after the seminar of O. The number of seminars between M and Q is the same as the number of seminars between P and S. Seminar of R is somewhere before S. N's seminar is in July. There is one seminar scheduled between M and N's. P and O have seminars in the same month. S has a seminar on the 29th of one month. M's seminar is in month having 31 days.

16. Who attended the seminar on 29th of November?
 A. S B. P
 C. O D. None of these
 E. Can't be determined
17. How many people attended the seminar between Q and T?
 A. 3 B. 1

- C. O D. 2
 E. None of these

18. In which month did R attend the seminar?

- A. March B. July
 C. September D. November
 E. None of these

19. Who was the last person to attend the seminar?

- A. P B. Q
 C. R D. S
 E. None of these

20. Who was the third person to attend the seminar?

- A. Q B. N
 C. P D. O
 E. None of these

Directions (21-25): Study the table carefully and answer the questions given below.

S, D, N, G, M, A and R each live on eight different floors of a building. The ground floor is numbered floor 1 while the top floor is floor 8. One of the floors in the building is commercial, rest all the residential floors. Some additional information is known about them – G does not live on a floor immediately above or immediately below M's floor. A does not live on the first floor. M lives on a floor immediately above the commercial floor.

D lives on the sixth floor. No floor below the fourth floor is commercial. Also, no even numbered floor is commercial. S lives exactly between G and R. G does not live on an odd numbered floor.

21. Who lives exactly above D?

- A. A B. V
 C. M D. G
 E. None of these

22. Who lives on the third floor?

- A. M B. R
 C. S D. G
 E. None of these

23. How many floors are there between D and R?

- A. 3 B. 2
 C. 1 D. 4
 E. None of these

24. Who lives on the topmost floor?

- A. A B. G
 C. S D. M
 E. None of these

25. Select the odd one out.



- A. MV B. AG
 C. RN D. DV
 E. None of these

Directions (26-30): Study the table carefully and answer the questions given below.

Seven countries participated in two different games Kabaddi and Hockey. The countries which participated in both the games were Japan, India, Pakistan, Afghanistan, Iran, South Korea and Australia. Each country obtained different rankings on the basis of their performance in the games. No two countries obtained the same ranking in a particular game. Some additional information is known about them – At least four countries got rankings above Japan in Kabaddi. South Korea's performance was better than Australia's in both games. Pakistan did not get the highest or the lowest ranking in any games. Japan was ranked amongst the top three teams in Hockey. Afghanistan's ranking in Hockey was just above Australia but in Kabaddi it was just below Iran. The Rankings of Japan and Afghanistan were consecutive in both the games. Japan's ranking in Kabaddi race was just above South Korea but in Hockey it was just below Pakistan.

26. Who stood at last place in Hockey?
 A. Japan
 B. Iran
 C. South Korea
 D. Cannot be determined
 E. None of these
27. Who stood first in Kabaddi?
 A. Iran B. India
 C. Pakistan D. Afghanistan
 E. None of these
28. How many countries ranked above Japan in Kabaddi?
 A. 3 B. 4
 C. 2 D. 5
 E. None of these
29. Who stood second last in Hockey?
 A. Australia
 B. Japan
 C. None of these
 D. Cannot be determined
 E. Iran
30. What was the rank of Australia in Hockey?
 A. 5 B. 4
 C. 3 D. 2
 E. None of these

Directions (31-35): Study the table carefully and answer the questions given below.

A, F, E, U, V, X, W and G are sitting around a square table in such a way that four of them sit at four corners of the square while four sit in the middle of each of the four sides. The ones who sit at the four corners face the centre while those who sit in the middle of the sides face outside. Some additional information is known about them – F does not sit at any of the corners. F sits third to right of her husband. Four of them are males and the rest are females. E sits fourth to the right of his wife and his wife is not an immediate neighbour of A or W. Only U sits between F and G. G is the husband of A.V is a male. Two females sit in the middle of the sides and two at the corners. W sits in the middle of one of the sides. A sit second to the left of W.

31. Who sits exactly opposite to U?
 A. E B. E
 C. F D. V
 E. None of these
32. Who sits second to the right of W?
 A. F B. A
 C. V D. None of these
 E. Can't be determined
33. How many people sit between A and U when counted ACW from A?
 A. 2 B. 3
 C. 4 D. 1
 E. None of these
34. Who sits to the immediate left of X?
 A. F B. W
 C. E D. A
 E. None of these
35. Three out of the four options are similar in a certain way. Select the option that does not fit in the group.
 A. EV B. UF
 C. GA D. FA
 E. None of these

Directions (36-40): Study the table carefully and answer the questions given below.

There are five Gymnasts J, K, L, M and N who are fighting with five grapplers namely W, X, Y, Z and V but not necessarily in the same order. Each fight is of one hour duration. First fight is scheduled from 6PM and the last at 10PM. All five fights are taking place in different cities viz. Sydney, New York, Las Vegas, Toronto and Sao Paulo. Some additional information is



known about them -The female whose fight is at 10 PM fights in Las Vegas. Z does not fight in New York. N fights at 10 PM. The grappler whose fight is in New York does not fight at 6 PM. J's fight is at 9 PM and fights neither with Z nor with the one whose fight is in New York. W's fight is in Sydney and he does not fight with J. The Gymnast who has a fight with Z is a female but she is not M. J and L are not females. K fights at 7 PM. Among Gymnasts, there are only three females, who are - the one who fights with X, the one whose fight is at 8 PM and the one whose fight is in Toronto. Y's fight is neither in New York nor in Sydney.

No male Gymnast fights with a female grappler.

36. Who fights against J?
 A. V B. Y
 C. Z D. X
 E. None of these
37. Who are the female grapplers?
 A. YVZ B. LJN
 C. WYX D. ZVX
 E. None of these
38. Who were the last ones to fight?
 A. JV B. MY
 C. NX D. KW
 E. None of these
39. At what time did the fight in Sydney take place?
 A. 6pm B. 9 pm
 C. 7 pm D. 10pm
 E. None of these
40. The fight that took place at 9 pm was between who?
 A. JY B. MV
 C. KZ D. None of these
 E. Can't be determined

Directions (41-45): Study the table carefully and answer the questions given below.

Eight people M, N, O, P, Q, R, T and U are sitting around a square table and all of them are facing towards the centre of table. Each of them like different brands One plus, Honor, Apple, Poco, Oppo, Vivo, Samsung and Moto but not necessarily in the same order. Two people sit on each side of the table. Here's the additional information known about them -O does not like the Poco or One plus brand. The people who like the One plus and Samsung brands sit on the same side. Three people sit between the one who likes the Poco brand and the one who likes the One plus brand. Only one person sits between M and O. Only one person sits between M and U. Q

neither like One plus nor Samsung brand. Only one person sits between Q and R who likes the Oppo brand. U does not sit on the same side with the one who likes Poco brand. Only three people sit between the one who likes Vivo and P. The one who likes the Apple brand sits second to right of O. M sits third to left of T who likes the Moto brand. The one who likes Honor brand does not sit adjacent to R.

41. Who likes Apple?
 A. P B. T
 C. O D. Q
 E. None of these
42. Who sits second to the right of the one who likes Samsung?
 A. O B. Q
 C. M D. T
 E. None of these
43. Who sits exactly opposite to M?
 A. P B. T
 C. O D. Q
 E. None of these
44. Three out of the four options are similar in a certain way. Select the option that does not fit into the group.
 A. RP B. QU
 C. PM D. ON
 E. None of these
45. Who sits to the immediate left of Q?
 A. M B. O
 C. T D. P
 E. None of these

Directions (46-50): Study the table carefully and answer the questions given below.

There are eight persons X, Y, Z, M, Q, R, S, and T sitting around a circular table facing the centre but not necessarily in the same order. Each of them has a relationship with M. There are only two married couples. Some additional information is known about them -The daughter of M is sitting second to the left of the brother of M.

X is sitting to the immediate right of R. The son of M is sitting second to the right of the wife of M. Three persons are sitting between the son of M and the brother of M. Y is sitting to the immediate right of the sister of M. Two people are sitting between Y and the father of M. Two people are sitting between Q and Z.

M is sitting second to the left of Q.



Three people are sitting between Z and the wife of M. T is sitting second to the right of the mother of M. R is neither son nor wife of M. The sister of M is sitting second to the left of R.

46. Who is the brother of M?
 A. Q B. S
 C. Z D. Y
 E. None of these
47. Who sits exactly opposite to R?
 A. M B. Q
 C. V D. S
 E. None of these
48. How is T related to X?
 A. Father B. Son
 C. Grandson D. Grandfather
 E. None of these
49. How many people sit between X and Q?
 A. 1 B. 0
 C. 3 D. 2
 E. None of these
50. How is Y related to M?
 A. Sister B. Mother
 C. Wife D. Grandmother
 E. None of these

Directions (51-55): Study the table carefully and answer the questions given below.

M, N, O, P, Q, R and S live on different floors of the seven-storey building. The Lowest floor is numbered 1 and the topmost floor is numbered 7. Some of them live in 1-BHK while the rest live in 2-BHK apartments. Some additional information is known about them -

O lives on a lowermost floor, immediately below S, who lives in a 1-BHK apartment.

M lives above Q but not in a 2-BHK apartment. R lives below Q. There are 2 floors between N and P. N lives above P who lives in a 1-BHK apartment.

No two consecutive floors have 1-BHK apartments.

51. Who lives on the second floor?
 A. P B. Q
 C. R D. S
 E. None of these
52. How many people live between N and R?
 A. 3 B. 2
 C. 0 D. 1
 E. None of these

53. Three out of the four options are similar in a certain way. Select the option that does not fit in the same group.

A. R B. P
 C. Q D. N
 E. None of these

54. Who lives two floors above S?

A. P B. Q
 C. M D. N
 E. None of these

55. How many people live below Q?

A. 4 B. 3
 C. 2 D. 1
 E. None of these

Directions (56-60): Study the table carefully and answer the questions given below.

A, B, C, D, E, F, G and H are sitting around a circle facing the centre but not necessarily in the same order. Each of them has a relationship with A. Some additional information is known about them - G is sitting second to the left of father of A. F is an immediate neighbour of A. D, mother of A is sitting opposite to the sister of A. B is sitting to the immediate right of the wife of A. E, who is a male is sitting second to the right of mother C. Brother of A is sitting third to right of B.

Daughter of A is sitting third to the right of sister of A. A is sitting second to the right of the daughter of E. E is sitting to the immediate left of sister of A.

56. Who sits exactly opposite to B?

A. F B. H
 C. A D. D
 E. None of these

57. Who sits to the immediate right of A's brother?

A. H B. A
 C. E D. B
 E. None of these

58. How many kids does G have?

A. 3 B. 2
 C. 1 D. 0
 E. None of these

59. Who sits second to the left of H?

A. B B. G
 C. D D. None of these
 E. Can't be determined

60. Select the odd one out.

A. B B. E



C. F

D. C

E. None of these

Directions (61-65): Study the table carefully and answer the questions given below.

P, Q, R, S, T, U, V and W are sitting around a circle facing the centre but not necessarily in the same order. Each of them has a relationship with P. Some additional information is known about them. V is sitting second to the left of father P. U is an immediate neighbour of P.

S, mother of P is sitting opposite to the sister of P. Q is sitting to the immediate right of the wife of P. T is sitting to the immediate left of the sister of P. T who is a male is sitting second to the right of the mother of R. Brother of P is sitting third to right of Q. Daughter of P is sitting third to the right of the sister of P. P is sitting second to the right of the daughter of T. V has two children in different genders.

61. Who sits to the immediate right of P's son?

A. W

B. T

C. S

D. P

E. None of these

62. Who sits exactly opposite to W?

A. Q

B. V

C. P

D. S

E. None of these

63. How many siblings does P have?

A. 0

B. 2

C. 3

D. 1

E. None of these

64. Who sits exactly opposite to P's daughter?

A. W

B. U

C. Q

D. None of these

E. Can't be determined

65. Three out of the four options are similar in ascertain way. Select the option that does not fit in the group.

A. UT

B. QS

C. PS

D. RU

E. None of these

Directions (66-70): Study the table carefully and answer the questions given below.

L, M, N, O, P, Q, R and S are sitting around a circle facing the centre but not necessarily in the same order. Also, S's husband is sitting second to the right of M. Q is sitting second to the left of O's daughter. Q is the sister of R. S's husband is not an immediate neighbour of Q. Only one person is sitting between Q and L. Similarly, there is only one person

sitting between P and S's mother. No female sits to the immediate side of M.

L is the father of R. S's mother is sitting to the immediate right of O, who is S's brother. Only one person sits between S and R. P is not an immediate neighbour of R, who is the mother of N.

66. How many people sit between L and O?

A. 0

B. 4

C. 3

D. 1

E. Can't be determined

67. Who sits second to the left of R?

A. L

B. P

C. O

D. N

E. None of these

68. How is N related to L?

A. Grandfather

B. Father

C. Son

D. Grandson

E. None of these

69. Select the odd one out.

A. N

B. L

C. S

D. O

E. None of these

70. Three out of four options are similar in a certain way. Select the option that does not fit in the group.

A. LR

B. SP

C. QS

D. MO

E. None of these

Directions (71-75): Study the table carefully and answer the questions given below.

Eight family members J, K, L, M, N, O, P and Q are sitting around a circular table facing the centre, but not necessarily in the same order. There are four males and four females. Some additional information is known about them - Q is third to the right of K who is the son of J. N is an immediate neighbour of Q and second to the left of his son. O, who is married to K and is third to the right of N's son. L and her mother J are immediate neighbours of each-other. L is the mother of M. P is female but she is not the daughter of L or Q. P is in the third generation.

O is not an immediate neighbour of her husband's sister. N is the son-in-law of Q and is not an immediate neighbour of M.

71. How many males are there in the family?

A. 4

B. 3

C. 2

D. 1

E. None of these



72. Who sits exactly opposite to J?
 A. P B. K
 C. O D. None of these
 E. Cannot be determined
73. Who sits second to the right of L?
 A. Q B. O
 C. J D. K
 E. None of these
74. Who is the father of M?
 A. Q
 B. K
 C. N
 D. Cannot be determined
 E. None of these
75. How many people sit between O and Q?
 A. 2 B. 0
 C. 5 D. None of these
 E. Cannot be determined

Directions (76-80): Study the table carefully and answer the questions given below.

Eight members of a family are S, T, U, V, W, X, Y and Z. All are sitting around a circular table facing the centre, but not necessarily in the same order. Y is not an immediate neighbour of W. T sits second to the left of Z's husband. Y is the mother of U. Only one person sits between Z's mother and W. No female is an immediate neighbour of T. V's daughter sits second to the right of X. X is the sister of Y. X is not an immediate neighbour of Z's husband. Only one person sits between S and X. S is the father of Y. Z's brother V sits to the immediate left of Z's mother. Only one person sits between Y and Z.

76. How many people sit between X and U?
 A. 0
 B. 1
 C. 2
 D. Cannot be determined
 E. None of these
77. Who sits exactly opposite to S?
 A. W B. V
 C. Z D. T
 E. None of these
78. Who is the spouse of Z?
 A. V B. Y
 C. X D. S
 E. None of these
79. Select the odd one out.

- A. X B. Y
 C. S D. W
 E. None of these
80. How many females are there in the family?
 A. 3
 B. 4
 C. 2
 D. Cannot be determined
 E. None of these

Directions (81-85): Study the table carefully and answer the questions given below.

Four couples decided to have lunch together in a restaurant where a circular dinner table is kept. P, Q, R, S, T, U, V and W are the members of a group of male and females. All of them are sitting around a circular table facing the centre. Some additional information is known about them - W and R are immediate neighbours of each other. T is the husband of the one who sits second to the left of P, who is not the immediate neighbour of S. P sits 3rd to the left of T. P is the wife of W. U is not an immediate neighbour of his wife Q. No two males or females are immediate neighbours of each other. U sits second to the right of S, who is not an immediate neighbour of T

81. Who sits exactly opposite to Q?
 A. P B. U
 C. V D. S
 E. None of these
82. Who sits second to the right of R?
 A. Q B. P
 C. U D. W
 E. None of these
83. How many people sit between U and T?
 A. 0 B. 1
 C. 4 D. 3
 E. None of these
84. Who among the following is not a female?
 A. V B. Q
 C. R D. W
 E. None of these
85. Three out of the four options are similar in a certain way. Select the option that does not fit in the group.
 A. US B. QR
 C. WT D. PV
 E. None of these



Directions (86–90): Study the table carefully and answer the questions given below.

There are eight persons P, Q, A, B, T, U, J and F are sitting around a circular table such that some of them are facing outside and some of them facing inside. They are of different ages 25, 32, 18, 28, 41, 16, 30 and 22 but not necessarily in the same order. Some additional information is known about them – A and P face opposite directions. J is 22 years old and sits 3rd to the right of U, who is an immediate neighbour of Q, who is 28 years old. A faces the same direction as U and U is 18 years old. T is 25 years old and sits on the immediate right of F. The one who is 16 years old sits on the immediate left of T. A sits 2nd to the left of B, who is 30 years old. J is an immediate neighbour of A. P sits opposite to Q and faces the centre. The one who is 18 years old sits opposite to B. B and T face the same direction. Q and J face the same direction as F. The one who is 28 years old sits second to the left of one who is 32 years old.

86. Who sits to the immediate right of A?
 A. J
 B. U
 C. F
 D. T
 E. None of these
87. Who sits exactly opposite to P?
 A. Q
 B. U
 C. F
 D. None of these
 E. Can't be determined
88. Who is 32 years old?
 A. T
 B. F
 C. U
 D. Q
 E. None of these
89. How old is B?
 A. 22
 B. 41
 C. 16
 D. None of these
 E. Can't be determined
90. Who sits exactly opposite to T?

- A. B
 B. U
 C. A
 D. J
 E. None of these

Directions (91–95):

Four married couples A, B, C, D, E, F, G and H are sitting around a circular table and facing the centre. They are all related to each other. Some additional information is known about them – D is the daughter of A.

F is 2nd to the left of A. H is 2nd to the left of E. H is the brother of D and two people are sitting between H and D. C is grandmother of F. B has no child.

Two people are sitting between E and A's wife. One person is sitting between F's wife and E's wife. F is married to G. All wives are sitting with their husbands.

91. Who sits exactly opposite to G?
 A. B
 B. H
 C. E
 D. D
 E. None of these
92. Who is E married to?
 A. D
 B. G
 C. F
 D. B
 E. None of these
93. Who is not a female?
 A. G
 B. D
 C. H
 D. B
 E. None of these
94. Who sits second to the right of H?
 A. E
 B. A
 C. C
 D. B
 E. None of these
95. How many people sit between C and H when counted CW from C?
 A. 6
 B. 0
 C. 2
 D. None of these
 E. Can't be determined


Exercise – 2

Directions (1 – 5): Study the table carefully and answer the questions given below.

Eight family members A, B, C, D, E, F, G and H were sitting around a circular table facing the centre. Some additional information is known about them –

C's sister-in-law, H, sits second to the right of her husband. C, one of the sons of G, sits exactly opposite G and is an immediate neighbour of his mother. C's niece, B, sits third to the left of her grandfather. No couple sits together. C's sister F is exactly opposite her husband D and is an immediate neighbour of H. E, who has no child, is a male member while C and B are the only unmarried members of the family.

1. How many people sit between C and D?

- A. 1
- B. 2
- C. 3
- D. Can't be determined
- E. None of these

2. Who sits second to the right of A?

- A. B
- B. H
- C. F
- D. G
- E. None of these

3. Who sits exactly opposite to E?

- A. A
- B. B
- C. C
- D. D
- E. None of these

4. Who are the males in the family?

- A. GCA
- B. AFD
- C. HFB
- D. CEG
- E. None of these

5. Who is the wife of G?

- A. A
- B. H
- C. F
- D. B
- E. None of these

Directions (6 – 10): Study the table carefully and answer the questions given below.

N, J, L, M, P, K, O and Q are sitting around a circular table facing the centre. Each of them was born in different years, 1981, 1983, 1985, 1987, 1989, 1991, 1993 and 1995, not in this particular order. Calculate their ages as per the year 2017. Some additional information is known about them – Q is older than only M. The only person sitting between J and K was born in 1991. Q is sitting second to the left of P. P does not sit beside N. N is the oldest person among all, and is not an immediate

neighbour of J or M. L does not sit beside N. The sum of the ages of J and K is equal to that of L and O. One of the neighbours of N was born in 1983. K is older than J. M is sitting second to the right of K. L is sitting third to the right of J.

6. How old is L?

- A. 28
- B. 30
- C. 26
- D. 32
- E. None of these

7. Who sits exactly opposite to Q?

- A. M
- B. K
- B. P
- C. None of these
- E. Can't be determined

8. In which year was P born?

- A. 1991
- B. 1989
- C. 1993
- D. 1995
- E. None of these

9. Who sits second to the right of O?

- A. Q
- B. L
- C. M
- D. K
- E. None of these

10. How many people were born between K and P?

- A. 3
- B. 2
- C. 0
- D. 1
- E. None of these

Directions (11 – 15): Study the table carefully and answer the questions given below.

There are eight persons – D, E, F, G, H, I, J and K and out of them 4 are females. They sit in a row facing south and have different brands of watches – Sonata, Titan, Rolex, Fastrack and Omega. The following information is known about them – F sits adjacent to D and H. Two females sit adjacent to each other and one of them sits on one of the extremes. The two males having Rolex form the only pair who has the same watch and is sitting together.

The persons who have Omega have two persons in between them. K sits 4th to the left of I. D, who is the wife of E, is sitting at 4th position from the left end according to their own direction. E sits to the immediate right of I. Neither G nor F has Fastrack. J who is the husband of G has Titan and sits 2nd to the right of I and none of them sits at the extreme end. Only one person has Sonata and not more than two persons have the same watch.

11. Who sits at the extreme right of the row?

- A. J
- B. K



- C. G D. H
 E. None of these
12. Which pair wears the omega watch?
 A. FE B. IJ
 C. DK D. HI
 D. None of these
13. Who sits to the immediate right of H?
 A. F B. K
 C. D D. I
 E. None of these
14. How many people sit between E and H?
 A. 3 B. 2
 C. 1 D. 0
 E. None of these
15. Who are the immediate neighbours of I?
 A. ED B. DF
 C. EJ D. HK
 E. None of these

Directions (16 – 20): Study the table carefully and answer the questions given below.

Eight persons M, N, O, P, Q, R, S, and T who belong to the same family, are sitting around a circular table facing centre, but not necessarily in that order. Some additional information is known about them – Only one person sits between M and R. T sits second to the right of S. S is the mother of O. P's daughter sits second to right of R. T's brother P sits to the immediate right of T's mother. N sits second to left of T's husband. M is an immediate neighbour of P. R is not an immediate neighbour of T's husband.

M is the father of S. No female is an immediate neighbour of N. R is the sister S.

Only one person sits between T's mother and Q. S is an immediate neighbour of M. N is sitting between O and P.

16. Who sits second to the right of S?
 A. T B. P
 C. N D. O
 E. None of these
17. How many people sit between O and M?
 A. 4
 B. Can't be determined
 C. 1
 D. 0
 E. None of these
18. Three out of the four options are similar in a certain way. Select the option that does not fit in the group.

- A. P B. M
 C. O D. R
 E. None of these
19. Who is the husband of T?
 A. M B. P
 C. O D. None of these
 E. Can't be determined
20. Who sits exactly opposite to N?
 A. R B. T
 C. S D. M
 E. None of these

Directions (21 – 25): Study the table carefully and answer the questions given below.

Eight female members of a family – M, N, O, D, E, F, G and H – sitting around a circular table such that no two people sitting next to each other face the same side. Some additional information is known about them – E has only two daughters D and M, who sit on either side of O who is their maternal aunt. G has only one daughter who sits to the left of her aunt E.

F faces H in the same direction and sits to the left of M who is her great granddaughter. G sits to the left of her mother-in-law H, who faces the centre and also to the right of her sister-in-law, E.

21. Who sits to the immediate right of N?
 A. F B. E
 C. G D. H
 E. None of these
22. Who sits exactly opposite to M?
 A. E B. G
 C. D D. None of these
 E. Can't be determined
23. Who among the following is not a female?
 A. O B. D
 C. M D. E
 E. None of these
24. How many people sit between D and O when counted Clockwise from D?
 A. 0 B. 3
 C. 6 D. 5
 E. None of these
25. Who are the immediate neighbours of H?
 A. GD B. OM
 C. FN D. EM
 E. None of these


Directions (26 – 30): Study the table carefully and answer the questions given below.

Eight persons A, B, C, D, E, F, G and H are sitting around a circular table and facing the centre. Also, E is the father of C and F. B is the aunt of C. Two people are sitting between A and C. D is not a neighbour of C. C's brother is to the immediate left of C. G sits third to the right of H who is the mother of C. B sits opposite to G. D is second to the left of B's mother. D's daughter is second to the left of D. E's daughter is second to the right of G. A is the brother of E and sits to the immediate left of G. D is the father of E.

26. Who sits exactly opposite to G?
 A. B B. H
 C. E D. C
 E. None of these
27. What is the position of E w.r.t F?
 A. Second to the right
 B. Second to the left
 C. Third to the right
 D. Immediate right
 E. None of these
28. Who is the daughter of E?
 A. C B. B
 C. F D. None of these
 E. Can't be determined
29. Who among the following is not a male?
 A. A B. E
 C. D D. G
 E. None of these
30. Who sits second to the right of D?
 A. G B. B
 C. H D. C
 E. None of these

Directions (31 – 35): Study the table carefully and answer the questions given below.

Five coaches were presented with Drona Acharya award in different cities namely Mumbai, Delhi, Nashik, Hyderabad and Bangalore. They were awarded on different days of the same week. No one was awarded on weekends. These coaches teach different sports namely, Boxing, Wrestling, Judo, Archery and Swimming. Among the five coaches only two are males. Some additional information is known about them -The one who teaches Wrestling was not awarded in Bangalore. The coach who teaches archery was awarded in Nashik. The one who teaches Swimming was awarded neither in Hyderabad

nor in Bangalore. A female coach was awarded in Bangalore. The one who was awarded in Mumbai is a female and she was awarded on Tuesday. The Wrestling coach was awarded on Wednesday. The male coaches were awarded on alternate days of the week but not on Monday. Neither Boxing nor Archery coach was awarded on Monday. The Judo coach was awarded just immediately after the wrestling coach. In Bangalore the award was given on Thursday.

31. The coach teaching which sport received an award on Wednesday?
 A. Boxing B. Wrestling
 C. Judo D. None of these
 E. Can't be determined
32. In which city did the coach of Archery receive the award?
 A. Delhi B. Mumbai
 C. Hyderabad D. Nashik
 E. None of these
33. Which sport had a female coach?
 A. Wrestling B. Archery
 C. Swimming D. None of these
 E. Can't be determined
34. How many awards were given between swimming and Judo?
 A. 0 B. 2
 C. 1 D. 3
 E. None of these
35. The coach of boxing received the award in which city?
 A. Hyderabad B. Delhi
 C. Bangalore D. Mumbai
 E. None of these

Directions (36 – 40): Study the table carefully and answer the questions given below.

Eight family members A, B, C, D, E, F, G and H are going for a marriage party. Only three of them are females. They all sit around a circular table for dinner facing the centre but not necessarily in the same order. Some additional information is known about them -C is the son of A and sits third to the right of him. Brother of A sits opposite to C. G is the wife of A and sits opposite to her son-in-law. Father of E sits third to the left of him. D is not the mother-in-law of G. Mother-in-law of A's wife sits second to the left of A. F sits immediately right to her husband H.

36. Who sits exactly opposite to A?



- A. D B. C
 C. G D. B
 E. None of these
37. Who sits second to the right of F?
 A. A B. D
 C. B D. E
 E. None of these
38. Who is the wife of D?
 A. E B. B
 C. G D. F
 E. None of these
39. Who are the immediate neighbours of E?
 A. GB B. AH
 C. DC D. None of these
 E. Can't be determined
40. How many people sit between B and G?
 A. 1
 B. Can't be determined
 C. 0
 D. 3
 E. None of these

Directions (41 – 45): Study the table carefully and answer the questions given below.

P, Q, R, M, N, A, B and C are sitting around a square table in such a way that four of them sit at four corners of the square while four sit in the middle of each of the four sides. The ones who sit at the four corners face the centre while those who sit in the middle of the sides face outside. Some additional information is known about them—P sits second to the left of B. B sits in the middle of one of the sides. M sits fourth to the right of his wife and his wife is not an immediate neighbour of P or B. Q sits third to right of her husband. Q does not sit at any of the corners. Only R sits between Q and C. C is the husband of P. N is a male. Four of them are males and the rest are females. Two females sit in the middle of the sides and two at the corners.

41. Who sits to the immediate right of B?
 A. M B. A
 C. P D. Q
 E. None of these
42. Who sits second to the right of N?
 A. R B. M
 C. A D. C
 E. None of these
43. Select the odd one out.

- A. N B. M
 C. A D. C
 E. None of these
44. Who is the wife of C?
 A. R B. P
 C. Q D. A
 E. None of these
45. Who sits exactly opposite to R?
 A. A B. N
 C. M D. Q
 E. None of these

Directions (46 – 50): Study the table carefully and answer the questions given below.

P, Q, R, S, T, M, N and O are living on an eight-story floor not necessarily in the same order. They like different colours such as Grey, Blue, Red, Purple, White, Brown, Yellow and Orange not necessarily in the same order. The floors are numbered from 1 to 8 starting with ground floor number as 1, first floor as 2 and so on. Some additional information is known about them – Only 2 people live between Q and the one who likes Blue.

One who likes red lives immediately above Orange. O neither likes Purple nor Brown. Only 3 people live between N and P. The one who likes yellow lives immediately above the one who likes White but not on the topmost floor. Only 1 person lives between O and one who likes Yellow.

Only 1 person lives between R and the one who likes Blue. S lives on the lowermost floor. N lives on an even numbered floor above 5. Only 1 person lives between N and the one who likes Grey. The number of persons living above N is the same as the number of persons living between N and T.

T doesn't like Yellow. Only 2 people live between T and the one who likes Orange.

Q lives in one of the even numbered floors above Orange and does not like Purple.

46. Who lives on the floor below the fourth floor?
 A. M B. N
 C. P D. R
 E. None of these
47. Who likes orange?
 A. O B. R
 C. P D. None of these
 E. Can't be determined
48. How many people live below M?
 A. 3 B. 2
 C. 1 D. 4



- E. None of these
 49. Select the odd one out.

A. TP B. NM
 C. RT D. MO

- E. None of these
 50. Who likes the colour purple?
 A. The one who lives on the 3rd floor
 B. The one who lives on the 1st floor
 C. The one who lives on the topmost floor
 D. None of these
 E. Can't be determined

Directions (51 – 55): Study the table carefully and answer the questions given below.

Six friends H, M, N, Q, R and S are sitting around the circular table but not necessarily in the same order. Three of them are facing towards the centre while the rest of them are facing outside the centre. Each of them likes different foods namely burgers, pizzas, tacos, French fries, butter chicken and nachos but not necessarily in the same order. There are two females and four males. Some additional information is known about them -The one who sits second to the right of Q likes butter chicken. The one who likes tacos sits opposite M who is the sister of R.

Neither S nor N likes burgers. The one who likes nachos sits second to the left of the one who likes burgers. S sits second to the left of R. N sits opposite those who like French fries. Q

faces outside the centre and doesn't like pizza. H doesn't like burgers. H sits immediately to the right of N, who doesn't like French fries. Two people sit between H and the one who likes butter chicken. The one who likes burger is not an immediate neighbour of R.

51. Who sits to the immediate right of Q?

A. S B. H
 C. M D. R

E. None of these

52. Who sits exactly opposite to N?

A. H B. Q
 C. S D. M

E. None of these

53. Who likes butter chicken?

A. R B. N
 C. H D. None of these

E. Can't be determined

54. What does S like?

A. Pizza B. Tacos
 C. French fries D. Nachos

E. None of these

55. Select the odd one out.

A. Q B. S
 C. M D. H
 E. None of these

**ANSWER KEY:**

EXERCISE 1					EXERCISE 2				
1) C	20) B	39) A	58) B	77) A	1) D	12) C	23) E	34) B	45) C
2) D	21) B	40) A	59) A	78) D	2) A	13) A	24) C	35) D	46) E
3) C	22) C	41) A	60) D	79) C	3) A	14) A	25) A	36) A	47) D
4) D	23) A	42) C	61) B	80) B	4) D	15) A	26) A	37) B	48) D
5) D	24) D	43) B	62) D	81) A	5) A	16) A	27) A	38) B	49) C
6) A	25) D	44) C	63) B	82) A	6) A	17) B	28) A	39) D	50) A
7) C	26) D	45) A	64) D	83) D	7) D	18) D	29) D	40) B	51) A
8) A	27) B	46) B	65) C	84) D	8) A	19) A	30) A	41) B	52) C
9) D	28) B	47) A	66) E	85) C	9) A	20) A	31) B	42) A	53) D
10) A	29) D	48) D	67) D	86) A	10) B	21) A	32) D	43) D	54) C
11) B	30) A	49) E	68) D	87) A	11) C	22) B	33) C	44) B	55) C
12) B	31) A	50) C	69) C	88) B					
13) B	32) A	51) D	70) D	89) D					
14) D	33) A	52) A	71) A	90) C					
15) C	34) A	53) B	72) D	91) A					
16) A	35) C	54) A	73) B	92) A					
17) D	36) B	55) A	74) C	93) C					
18) A	37) D	56) C	75) D	94) A					
19) D	38) C	57) B	76) D	95) A					



GROUPING

Exercise – 1

Directions (1 – 5): Study the table carefully and answer the questions given below.

A team of five is to be selected from amongst five boys A, B, C, D and E and four girls P, Q, R and S. Some criteria for selection are:

A and S have to be together.

P cannot be put with R.

D and Q cannot be together.

C and E have to be together.

R cannot be put with B.

Unless otherwise stated, these criteria are applicable to all the question below:

- If R be one of the members, the other members of the team are:
 A. Q S A D B. P S A D
 C. S A C E D. Q S C E
 E. None of these
- If two of the members are girls and D is one of the members, the members of the team other than D are:
 A. P Q C E B. P Q B C
 C. P S C E D. P S A B
 E. None of these
- If A and C are members, the other members of the team cannot be:
 A. D E S B. B E S
 C. P Q E D. E S P
 E. None of these
- If including P at least three members are girls, the members of the team other than P are:
 A. Q S B D B. Q S A B
 C. R S A D D. Q S C E
 E. None of these
- If two of the members have to be boys, the team will consist of:
 A. A D S Q R B. A B S P Q
 C. C E S P Q D. B D S R Q
 E. None of these

Directions (6 – 10): Study the table carefully and answer the questions given below.

There are five men A, B, C, D and E and six women P, Q, R, S, T and U, A, B and R advocates;

C, D, P, Q and S are doctors and the rest are teachers. Some terms are to be selected from amongst these eleven persons subject to the following condition:

A, P and U have to be together. B cannot go with D or R. E and Q have to be together. C and T have to be together. D and P cannot go together. C cannot go with Q.

- If the term is to consist of two male advocates, two lady doctors and one teacher, the members of the team are:
 A. A B P U S B. A B P Q U
 C. B E Q R S D. A P R S
 E. None of these
- If the term is to consist of one advocate, two doctors, three teachers and C may not go with T, the members of the team are:
 A. A E P Q T U B. A E P Q S U
 C. E Q R S T U D. B E Q S T U
 E. None of these
- If the term is to consists of one male advocate, on male doctor, one lady doctor and two teachers, the members of the term are:
 A. A D E P T B. A C P T U
 C. B C E Q U D. A D E P U
 E. None of these
- If the term is to consists of one advocate, three doctors and one male teacher, the members of the team are:
 A. C D R S T B. A D P S U
 C. D E Q R T D. D E Q R S
 E. None of these
- If the term is to consists of two advocates, two doctors, two teachers and not more than three ladies, the members of the team are:
 A. A C P R T U B. A B C P T U
 C. B C E Q R T D. A E P Q R T
 E. None of these

Directions (11 – 12): Study the table carefully and answer the questions given below.

There are ten animals—two each of lions, panthers, bison, bears, and deer—in a zoo. The enclosures in the zoo are named X, Y, Z, P and Q and each enclosure is allotted to one of the following attendants:



Jack, Mohan, Shalini, Suman and Rita. Two animals of different species are housed in each enclosure. A lion and a deer cannot be together. A panther cannot be with either a deer or a bison. Suman attends to animals from among bison, deer, bear and panther only. Mohan attends to a lion and a panther. Jack does not attend to deer, lion or bison. X, Y, and Z are allotted to Mohan, Jack and Rita respectively. X and Q enclosures have one animal of the same species. Z and P have the same pair of animals.

11. The animals attended by Shalini are
 A. bear and bison B. bison and deer
 C. bear and lion D. bear and panther
 E. None of these
12. The animals attended by Suman are
 A. lion and bear B. panther and bear
 C. deer and bear D. panther and lion
 E. None of these

Directions (13 – 15): Study the table carefully and answer the questions given below.

In a local pet store, seven puppies wait to be introduced to their new owners. The puppies, named Ashlen, Blakely, Custard, Daffy, Earl, Fala and Gabino, are all kept in two available pens. pen 1 holds three puppies, and pen 2 holds four puppies.

If Gabino is kept in pen 1, then Daffy is not kept in pen 2

If Daffy is not kept in pen 2, then Gabino is kept in pen 1

If Ashlen is kept in pen 2, then Blakely is not kept in pen 2

If Blakely is kept in pen 1, then Ashlen is not kept in pen 1

13. If Earl and Fala are in different pens, then which of the following must NOT be true?
 A. Fala shares a pen with Custard.
 B. Gabino shares a pen with Ashlen.
 C. Earl is in higher-numbered pen than Blakely.
 D. Blakely shares pen 2 with Earl and Daffy.
 E. Custard is in higher-numbered pen than Fala.
14. If Earl shares a pen with Fala, then which of the following MUST be true?
 A. Gabino is in pen 1 with Daffy
 B. Custard is in pen 2
 C. Blakely is in pen 2 and Fala is in pen 1
 D. Earl is in pen 1
 E. Gabino shares a pen with Blakely
15. Which of the following groups of puppies could be in pen 2?
 A. Gabino, Daffy, Custard, Earl.

B. Blakely, Gabino, Earl, Custard.

C. Ashlen, Gabino, Earl, Custard.

D. Blakely, Custard, Earl, Fala.

E. Gabino, Ashlen, Fala, Earl.

Directions (16 – 21): Study the table carefully and answer the questions given below.

During one week, a human resource director conducts five interviews for a new job, one interview per day, Monday through Friday. There are six candidates for the job – Ram, Shyam, Trilochan, Usha, Veena, and Kishore. No more than two candidates are interviewed more than once. Neither Shyam nor Usha nor Veena is interviewed more than once, and no other candidate is interviewed more than twice. The schedule of interviews is subject to the following conditions :

If Trilochan is interviewed, then Trilochan must be interviewed on both Monday and Friday.

If Shyam is interviewed, then Usha is also interviewed, with Shyam's interview taking place earlier than Usha's interview.

If Ram is interviewed twice, then Ram's second interview takes place exactly two days after Ram's first interview.

If Veena is interviewed, then Kishore is interviewed twice, with Veena's interview taking place after Kishore's first interview and before Kishore's second interview.

If Usha is interviewed, then Ram is also interviewed, with Usha's interview taking place on a day either immediately before or immediately after a day on which Ram is interviewed.

16. If both Usha and Veena are interviewed, then which one of the following is a complete and accurate list of the days on which Kishore could be interviewed?
 A. Monday, Friday
 B. Tuesday, Thursday
 C. Monday, Wednesday, Friday
 D. Tuesday, Wednesday, Thursday
 E. None of these
17. If neither Usha nor Trilochan is interviewed, then each of the following MUST BE true EXCEPT:
 A. Ram is interviewed on Monday.
 B. Ram is interviewed on Thursday.
 C. Veena is interviewed on Tuesday .
 D. Kishore is interviewed on Wednesday .
 E. None of these
18. If Shyam is interviewed, then which one of the following could be true?
 A. Kishore is interviewed on both Tuesday and Wednesday



- B. Usha is interviewed on Monday.
 C. Veena is interviewed on Tuesday
19. If Kishore is not interviewed, then which one of the following MUST BE true?
 A. Ram is interviewed on Thursday
 B. Shyam is interviewed on Tuesday
 C. Trilochan is interviewed on Monday
 D. Usha is interviewed on Wednesday
 E. None of these
20. If Veena is interviewed on Tuesday, then which one of the following MUST BE true?
 A. Trilochan is interviewed on Friday
 B. Usha is interviewed on Thursday
 C. Usha is interviewed on Thursday
 D. Shyam is not interviewed
 E. None of these
21. Which of the following could be a complete and accurate list of candidates the human resources director interviews and the days on which those interviews take place?
 A. Monday: Shyam; Tuesday: Usha; Wednesday: Ram; Thursday: Kishore; Friday: Ram;
 B. Monday: Shyam; Tuesday: Kishore; Wednesday: Ram; Thursday: Kishore; Friday: Usha;
 C. Monday: Trilochan; Tuesday: Ram; Wednesday: Shyam; Thursday: Ram; Friday: Trilochan;
 D. Monday: Trilochan; Tuesday: Ram; Wednesday: Kishore; Thursday: Veena; Friday: Trilochan;
 E. None of these

Directions (22 – 23): Study the table carefully and answer the questions given below.

The Vice Chancellor of a University wants to select a team of five member organizing committee for the next convocation of the University to be held in March 2012. The committee members are to be selected from five shortlisted professor (prof. Ahuja, prof. Banerjee, prof. Chakravarty, prof. Das and prof. Equbal) and four short listed students (Prakash, Queen, Ravi and Sushil). Some conditions for selection of the committee members are given below:

- i. Prof. Ahuja and Sushil have to be together
- ii. Prakash cannot be put with Ravi
- iii. Prof. Das and Queen cannot go together
- iv. Prof. Chakravarty and prof. Equbal have to be selected
- v. Ravi cannot be selected with prof. Banerjee

- D. Shyam is interviewed on Thursday
 E. None of these
22. In case Prof. Ahuja and Prof. Chakravarty are members, who are the other members who cannot be selected for the committee?
 A. Prof. Banerjee, Prof. Equbal and Sushil
 B. Prof. Equbal, Sushil and Prakash
 C. Prof. Equbal, Prakash and Queen
 D. None of these
 E. Can't be determined
23. If two members of the committee are students and Prof. Das is one of the members of the committee, who are the other committee members?
 A. Prof. Banerjee, Prof. Chakravarty, Prakash and Queen
 B. Prof. Ahuja, Prof. Banerjee, Sushil and Prakash
 C. Prof. Chakravarty, Prof. Equbal, Prakash and Sushil
 D. None of these
 E. Can't be determined

Directions (24 – 25): Study the table carefully and answer the questions given below.

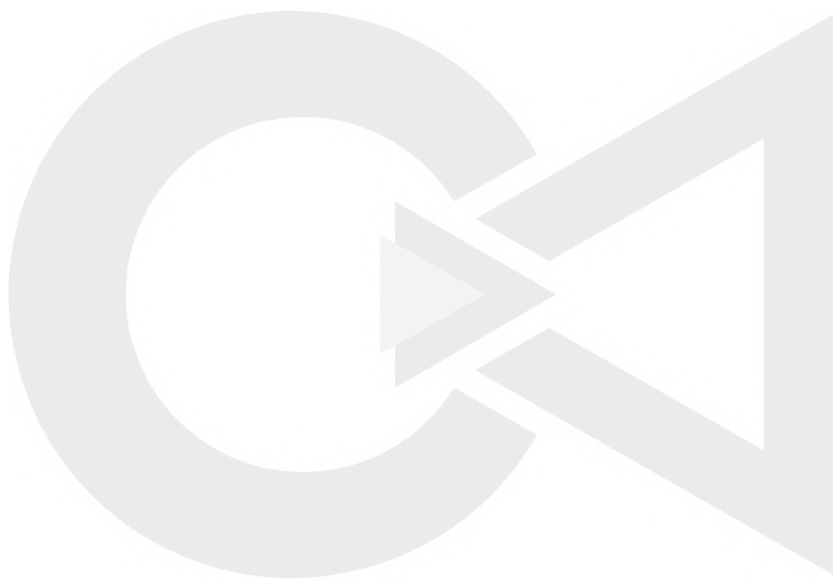
Three men and three women are travelling in two cars (red and blue). Each car has exactly three persons. The cars cannot have all women or all men passengers. Mala, Ajit and Suman know how to drive a car. Mala and Sapna are women. Manjit and Sarat are not in the same car. Ajit and Sarat are men.

24. If Suman and Manjit are the two passengers in the red car, who can be passengers of the blue car?
 A. Sapna and Sarat B. Mala and Ajit
 C. Sapna and Ajit D. Mala and Sarat
 E. All
25. If the red car can have either Manjit or Sarat but not both while Ajit drives it and Mala is driving the blue car, which of the following can be true?
 A. Suman is a men
 B. Manjit is a women
 C. Both (A) and (B) are correct
 D. (A) is correct but (B) is not
 E. None of these



ANSWER KEY:

1) C	6) A	11) C	16) C	21) A
2) D	7) A	12) C	17) D	22) D
3) C	8) B	13) E	18) A	23) D
4) B	9) D	14) B	19) C	24) E
5) B	10) B	15) D	20) D	25) C





SELECTION CRITERIA

Introduction

Selection criteria is a process in which a final outcome is derived by evaluating and analyzing the given information. Various types of questions covered in the Selection criteria Reasoning section such as Eligibility Test, Passage-Based Decision Making, and so on.

In some cases, conditions regarding the selection or non-selection of a candidate along with the bio data are given based on which his or her eligibility has to be decided by the candidate. In other types of questions, a paragraph of information is given and based on which the questions are to be answered in a relevant manner.

Questions of this section are usually analytical.

What is Decision Making?

The action or process of making important decisions for selection of a candidate is known as Decision Making. In this logical reasoning section, criteria for selection of any post or admission will be given, which a candidate must need to fulfill in order to get selected for a particular job or post.

In other types of questions, a paragraph of information is given and based on which the questions are to be answered in a relevant manner. Questions from the Decision Making reasoning section are designed to judge the decision making capability of a candidate.

Types of Decision Making

Now that we know what consists of the questions related to the Decision Making reasoning section, let's see the various types of questions that one may come by one below:

1. Eligibility Test

In this type of Decision Making, a set of necessary conditions and qualifications required to be fulfilled by the candidate for a certain vacancy in a job/promotion/admission in a college, along with the bio data of certain candidates who have applied for the same will be given. Candidates are required to evaluate and assess a candidate's eligibility and decide the appropriate course of action to be taken from the given alternatives.

2. Passage Based Decision Making

In this type of Decision Making, generally a paragraph or a group of statements is given followed by some questions, and a candidate is required to read the data carefully and decide accordingly, which option follows from the data.

How to Solve Question Based on Decision Making:

Tip 1: For solving the decision making reasoning section questions, candidates need to analyse the statements given very carefully before attempting the question.

Tip 2: Analyse the statements along with the bio data given for every candidate to eliminate the options and get the correct answer.

Tip 3: Candidates need to follow the course of actions based on the instructions given. Points should be according to conditions provided. For a candidate, only one exceptional condition will be allowed.


Solved Examples:

Directions (1 – 4): Study the table carefully and answer the questions given below.

These questions are based on the following information. A company dealing with software products is looking for candidates for the posts of 'Assistant General Manager'. The following are the criteria in selecting the candidate for the post.

The candidate must

- (1) Be a graduate in any branch of engineering,
- (2) Be less than 40 years of age,
- (3) Have at least six years of experience and
- (4) Sign a bond for 3 years.

If a candidate satisfies all the above criteria, he/she must be selected. If the candidate fulfills all other criteria except, (5) Criteria (3), but is an MBA in Information Systems, then he/she must be referred to the HR Manager. (6) Criteria (1), but is a graduate in Computer Applications and has at least 8 years of experience, then he/she must be referred to the Chief Technical Officer.

Based on above criteria and the data given in each question decide the action to be taken in each case.

Do not assume anything beyond the given information. If you feel that the given information is not sufficient to decide any action, then mark your answer as data inadequate.

Based on the above information,

Mark your answer as

- A. If the candidate is to be selected.**
- B. If the candidate is to be rejected.**
- C. If the candidate is to be referred to the HR Manager.**
- D. If the candidate is to be referred to the Chief Technical Officer.**
- E. If the data is inadequate to take a decision.**

1. Raju, who is a graduate in science, is ready to sign a bond for five years. He has seven years of experience in software. He is 34 years old.
2. Mahendar, whose age is 24 years, is a computer science engineering graduate with 4 years of experience and did his MBA in Information Systems. He is ready to sign a bond for 3 years.
3. Niranjana, who is an engineering graduate with eight years of experience is ready to sign a bond for 4 years. His age is 42 years.

4. Thomas, who is a graduate in computer applications has eight years of experience. His age is 38 years. He is ready to sign a bond for 3 years.

Solution

No	Name	(1) Eng. Grad (grad. In comp. Application and Exp ≥8 years)		(2) age < 40 years	(3) exp ≥ 6 years		(4) Bond for 3 years	Remarks
1	Raju	Y	[N]	Y	Y		Y	(1) is not satisfied
2	Mahendar	Y		Y	N	[N]	Y	(3) is not satisfied but (5) is satisfied
3	Niranjana	Y		N	Y		Y	(2) is not satisfied
4	Thomas	N	[Y]	Y		Y	Y	(1) is not satisfied but (6) is satisfied

1. Answer: B.
2. Answer: C.
3. Answer: B.
4. Answer: D.

Directions (5 – 8): Study the table carefully and answer the questions given below.

These questions are based on the following information.

Following criteria has been laid down for admission to a System Management course of Sahana Institute of Management (SIM).

The candidate must –

- (1) Have passed Graduation in any discipline with a minimum of 60% marks in aggregate (first class). For SC/ST candidates there is a relaxation of 5%.
- (2) Have completed 20 years of age in case of females and 21 years of age in case of males on or before 1st January 2007.
- (3) Pay a deposit of ₹ 20,000 along with the application form, if the applicant has passed graduation in first class.

If a candidate satisfies all the above criteria, he/she must be admitted.

However, if the applicant has secured more than 80% marks in graduation, the deposit amount would be 10,000 and if the marks are above 65% but not more than 80%, the deposit amount will be 15,000/-. If the candidate is a son or a daughter of a staff member of SIM, the amount of deposit will be 50% of that applicable to others, keeping the merit criteria the same. (4) For SC/ST candidates, the deposit amount is 20% of what is applicable to the normal (non-staff related) candidates and the condition of marks for each slab described above in (3) is relaxable by 5% for SC/ST candidates.

- (5) If a candidate fulfills the criteria (1) and (2) but cannot pay the total applicable amount whereas he/she can pay at least



2/3rd amount of the applicable deposit, the candidate may be referred to the chairman of SIM.

(6) If a candidate who is eligible under (1) and (2) criteria and cannot pay the total applicable amount but can pay at least half but less than 2/3rd of the applicable deposit, the candidate may be referred to the Dean of SIM.

(7) If a candidate who is eligible under criteria (1) and (2) but cannot pay even half of the applicable deposit then the candidate cannot be admitted.

Based on the above criteria, decide which of the following courses of action should be taken in the case of the candidates whose description is provided in the following questions.

Please note that you are NOT to assume data other than those described. However, you may treat the candidate as "General Category" if his category is not explicitly mentioned as SC/ST.

Mark your answer choice

A. If the candidate can be admitted.

B. If the candidate should be referred to Chairman of SIM.

C. If the candidate should be referred to the Dean of SIM.

D. If the candidate cannot be admitted.

E. If the data given are not sufficient to decide the course of action.

5. Kamalika belongs to SC, was born on 3rd June, 1986. She completed B.Sc with 64% marks and is ready to pay a maximum of ₹ 7,000 as deposit.

6. Varun, an M.A. with 80% marks, is the son of a shop-keeper. His age is 23 years as on the stipulated date. He can pay ₹ 20,000 as the deposit.

7. Rohan, the son of an ST category staff member of SIM, has completed his B.Sc. with 50% marks and M.Sc examination with 80% marks. He was born on 2nd July 1985 and is ready to pay ₹ 15,000 as deposit.

8. Hina's father is a professor in college BIM and her mother is a professor in college DIM. Hina was born on 27th August 1985 and can pay a maximum of ₹ 13,000 as deposit. She completed B.Com with

Solution

No	Name	(1)	(2)
		Graduate + 60% marks. For SC/ST 55% marks	Mini age: 20 years for female, 21 years for male
5	Kamalika	Y	Y
6	Varun	?	Y
7	Rohan	N	Y
8	Hina	Y	Y

5. Answer: A

Solution

Kamalika has cleared both (1) and (2). Since, she is an SC candidate and has scored 64% marks, it is enough if she pays 20% of 15,000 i.e. 3000. Hence, she can be admitted.

6. Answer: E

Solution

As no clear information is given regarding the graduation, data is insufficient.

7. Answer: D

Solution

Rohan fails to clear criteria (1) and hence he cannot be admitted.

8. Answer: B

Solution

Hina has cleared both (1) and (2). Hence, the only part to be known is the amount of deposit.

As her percentage is 79.5%, she needs to pay Rs.15,000/-. Also she is ready to pay Rs.13,000/- which is more than 2/3rd of 15,000. Hence, she may be referred to the chairman of SIM.

Directions (9 – 13) : Study the table carefully and answer the questions given below.

Read the following information, and then answer the questions given below it.

The selection committee of a company laid down the following criteria of selection for the post of Manager-Accounts.

(1) The candidate must be a Post-graduate in Commerce.

(2) The candidate must have completed 21 years and should be not more than 35 years as on 31st July, 1996.

(3) If the candidate does not satisfy the criteria (1) above but has completed his CA examination, he will be referred to Director Finance, who can allow the candidate to appear in the interview if otherwise eligible.

(4) If the candidate fulfils all the criteria mentioned in (1) and (2) above, he/she will be called for group discussion.

(5) The candidate must get 50% marks to qualify in the group discussion

(6) If the candidate qualifies in the group discussion, he/she will be called for the interview.

(7) The candidate must get 30% marks in the interview (out of 50) to get finally selected.

Based on the above criteria, decide which of the following courses of action should be taken in the case of candidates described in each of the following questions.

Mark your answer as:

A. If the candidate can be selected

B. If the candidate is to be referred to Director-Finance



C. If the candidate can be called for group discussion

D. If the candidate can be called for interview

E. If the candidate cannot be selected

9. Mr. Patil, a Post-graduate in Commerce obtained 70% in group discussion and secured 20% marks in interview. He was 35 years as on 31st July, 1996.

10. Mr. Desal is a Commerce-graduate, has passed his GA examination and was born on 18th April, 1974

11. Mr. Satyam Singh, a post-graduate in Commerce, born on 3rd April, 1962 obtained 60% marks in group discussion

12. Mr. Ghosh is M.Com, and his date of birth is 30th June, 1961

13. Mr. Mustak who was born on 4th May, 1996 did M.Com. one year back and he was the top candidate, in the group discussion.

Solution:

9. **Answer: A**

Solution

Mr. Patil satisfies all the criteria of selection. Therefore, he can be selected.

10. **Answer: B**

Solution

Mr. Desal is not a Post graduate in Commerce but has passed CA examination. Therefore, his case can be referred to Director-Finance.

11. **Answer: D**

Solution

Mr. Satyam satisfies Criteria (1), (2), (4) and (5). Hence, he can be called for interview.

12. **Answer: E**

Solution

Mr. Ghosh fails to satisfy Criteria B. Hence, he can't be selected.

13. **Answer: D**

Solution

Mr. Mustak satisfies Criteria (1), (2), (3) and (5). Hence, he can be called for interview.

Directions (14 – 20): Study the table carefully and answer the questions given below.

Read the following information, and then answer the questions given below it.

Following are the criteria for selection of chemistry lectures in an organization. The candidate must –

(1) Have passed +2 examination in first class with at least 60% marks.

(2) Have passed graduation with chemistry honours or pass degree with at least 55% marks.

(3) Have experience in chemistry teaching for a minimum of 1 year.

(4) Be not less than 22 years and not more than 30 years of age as on 1.1.2014.

If a candidate satisfies all the above mentioned criteria except

I. (2) Above but has a post-graduate degree in chemistry, case may be assigned to the executive director(ED).

II. (3) Above but candidate has marketing experience, the case may be assigned to the vice president (VP).

Based on the above criteria, decide which of the following courses of action should be taken in the case of candidates described in each of the following questions.

Mark your answer as:

A. If the candidate is to be selected.

B. If the case is to be assigned to ED.

C. If the case is to be assigned to VP.

D. If the information given is inadequate to answer.

E. If the candidate is not to be selected.

14. Sambhrant has completed +2 from BJB junior college with 65% marks and graduated in chemistry from Utkal University with 70%. He has teaching experience in chemistry for more than 3 years and his age is 27 years.

15. Laxmi Rattan Shukla has passed +2 with 70% marks and is a chemistry graduate with 50% and he has also done M SC in chemistry. He has experience of teaching for more than 1 year and is 29 years of age.

16. Mamta Kulkarni is a BSc chemistry student with 53% marks. She has secured 58% in the +2 but has teaching experience of 2 years. She is 28 years of age.

17. Ritu Chandra is a chemistry graduate with 65% in both +2 and graduation. He has no experience in teaching but he can do marketing for the institute. He has experience in marketing. His age is around 26 years.

18. Mannishree Malhotra is a B.Sc. graduate in chemistry and has scored 65% in his graduation. He has teaching experience of 3 years and his age is not more than 27 years.

19. Rani Mukherjee is a chemistry graduate. She has no experience in teaching but she can do marketing for the institute. She has experience in marketing. Her age is around 26 years.

20. Rajendra Sharma has passed +2 with 75% marks and is a chemistry honours graduate with 52% and he has also done M



Sc. in chemistry. He has experience of teaching for more than 2 years and is 29 years of age.

14. **Answer: A**

Solution

Sambhrant will be selected as he has all the required qualifications.

15. **Answer: B**

Solution

This case will be assigned to executive director of the institute because some points related to Mr. Shukla is confusing.

16. **Answer: E**

Solution

The candidate will not be selected because Miss Mamta doesn't satisfy the criteria.

17. **Answer: C**

Solution

This case will be assigned to the vice president of the institute as the candidate is able to do marketing. So option C is correct.

18. **Answer: D**

Solution

The data is not sufficient as nothing is mentioned about +2 of Mannishree Malhotra. So option D is correct.

19. **Answer: D**

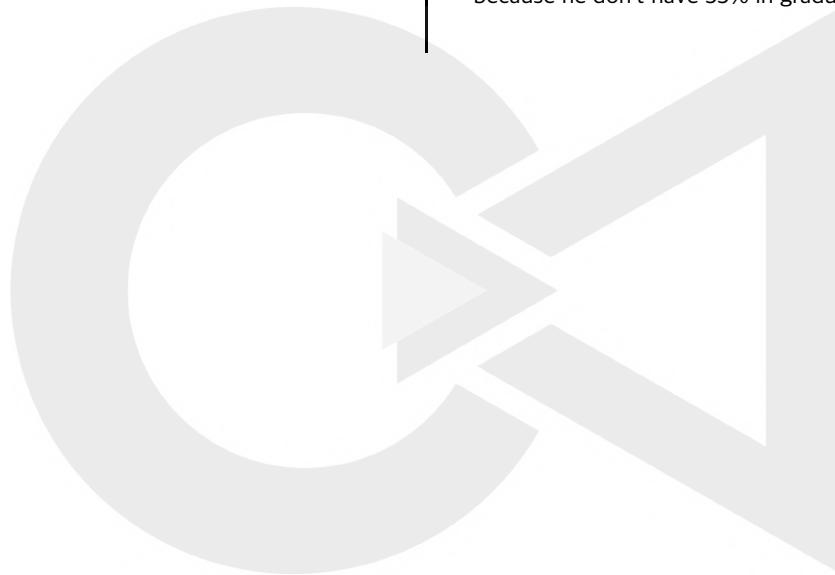
Solution

Here data is inadequate as no information has been given about +2 and percentage obtained in graduation. Hence option D is correct.

20. **Answer: B**

Solution

This case will be assigned to executive director of the institute because he don't have 55% in graduation.




Exercise – 1

Directions (1 – 5): Study the table carefully and answer the questions given below.

Study the following information carefully and answer the questions given below it.

Following are the qualifications necessary for the recruitment of a Librarian in a State University in the year 2005.

The candidate must:

- (1) Have a Master's degree in Library Science with at least 65% marks or its equivalent grade and a consistently good academic record.
- (2) Have at least 6 months specialisation in an area of Information Technology/Archives and Manuscript-keeping master's degree in an area of thrust in the institution.
- (3) Have at least ten years' experience as a Deputy Librarian in a University.
- (4) Bear evidence of innovative library service and organisation of published work.

In the case of a candidate who:

- (5) Has 15 years' experience as a College Librarian, the case may be referred to the Vice Chancellor.
- (6) Has obtained less than 55% marks in Library Science but has 13 years' experience as a Deputy Librarian in a University, the case may be referred to the Registrar of the University for his consideration.
- (7) has M.Phil./Ph.D. degree in Library Science/ Information Science/ Documentation/ Archives and Manuscript-keeping but has atleast ten years' experience as a College Librarian, the condition at (1) may be waived.

Based on the above conditions and the information provided against each of the candidates in the questions given below, decide which of the following courses of action should be taken against each candidate.

Mark answer:

- A. If the candidate is to be selected;**
- B. If the candidate is not to be selected;**
- C. If the data are inadequate;**
- D. If the case is to be referred to the Registrar and**
- E. If the case is to be referred to the Vice Chancellor.**

1. Nelson Alwa having Master's Degree in Library Science with 70% marks and with one year specialisation in an area of Information Technology joined as a Librarian in the Indian College on 22nd January, 1987. He also holds a certificate of innovative library service in the college.

2. Romin Kalra, an M.Phil in Library Science has been a Deputy Librarian in the Eden University since 27th August, 1990. He also bears Master's Degree in Archives and Manuscript-keeping. He holds the evidence of innovative organisation of published work of the college students doing Ph.D.
3. Sanjana Swami has been a Deputy Librarian in the Maharishi University since 1976. She holds evidence of contributing library service in the same institution. He has a Master's Degree in Library Science with 63% marks.
4. Akshata Singha holds a Ph.D. degree in Library Science and has a one year specialisation degree in Archives and Manuscript-keeping. She has been a Deputy Librarian in the Lowri University since 11th April, 1987. She also bears a certificate of innovative library service in a public library for three years.
5. Sunil Garewal has been a College Librarian since 15th December, 1975. He holds an M.Phil Degree in Library Science.

Directions (6 – 10) : Study the table carefully and answer the questions given below.

Following are the criteria for selecting a marketing officer by a company.

The candidate must:

- (1) Be a graduate with atleast 55% marks.
- (2) Have secured atleast 45% marks in the written test.
- (3) Not be less than 26 years and more than 32 years as on 28th October, 1998.
- (4) Should have work experience of atleast three years as an officer.

However, if a candidate:

- (5) Fulfils all other criteria except at (4) above but has a diploma in Marketing Management, his/her case is to be referred to General Manager, Marketing.
- (6) Fulfils all other criteria except at (3) above but has worked as Marketing Officer at least for four years, his/her case is to be referred to Director, Marketing.

Based on the above criteria and the information given in each of the following questions, you have to take the decision in regard to each case. You are not to assume anything. These cases are given to you as on 28th October, 1998.

Mark answer:

- A. If the candidate is to be appointed; mark answer**
- B. If the candidate is not to be appointed; mark answer**



C. If the data given are not sufficient to take decision; mark answer

D. If to be referred to General Manager – Marketing; and mark answer

E. If to be referred to Director – Marketing.

6. Sapna Rial, born on 10th August 1970, has done her post-graduation in Marketing Management with first class. She has secured 50% marks in the written test. She has been working in an organisation as a Marketing Officer for the last four years.
7. Abhi Marte has been working in an organisation as Officer for the last ten years. His date of birth is 17th February, 1971. He has secured 60% marks in the degree examination and 48% marks in the written test.
8. Nutan Bakshi is a first class graduate and has done a diploma in Marketing Management. She has secured 50% marks in the written test. She was 27 years old as on 5th September, 1998.
9. Narang Bose was born on 25th August, 1975. He has secured 60% and 50% marks in graduation and in the written test, respectively. He has been working in an organisation as Officer for the last six years.
10. Sachi Singh is a graduate with first class and has secured 60% marks in the written test. She has been working as an Officer for the last three years. She was born on 20th May, 1972.

Directions (11 – 15): Study the table carefully and answer the questions given below.

Study the following information carefully and answer the questions given below it:

Following are the criteria for allotment of plots by an organisation to its employees.

The employee must:

- (1) Have completed at least 12 years in this unit of the organisation out of which at least 7 years in the supervisory cadre.
- (2) Not have more than five members in the family.
- (3) Have at least 5 years of service remaining, the retirement age being 60 years.
- (4) Not have his/her own house.
- (5) Not be staying in a house owned by his/her spouse. In the case of an employee who:
- (6) Satisfies all other criteria except at (1) above and joined the organisation as a Manager, should be referred to the Director, Finance.

(7) Satisfies all other criteria except at (3) above at present working as a Senior Manager, is to be referred to the Managing Director.

(8) has been transferred from another city, the condition (1) may be waived.

Based on the above criteria and on the basis of the information provided in case of each employee in each of the following questions, you have to decide whether or not, accommodation is to be provided or the case is to be referred to higher authority. You are not to assume anything. All the cases are presented before you as on 31st July, 1998.

Mark answer:

A. If the employee is to be provided with accommodation;

B. If the employee is not to be provided with accommodation;

C. If the complete information as regards all the above criteria are not provided in the question;

D. If the case is to be referred to the Director, Finance;

E. If the case is to be referred to the Managing Director.

11. Vivek Aangi has joined the organisation four years back as an Officer. He stays with his wife and two children. Neither he nor his wife owns a house.
12. Sandip Chauhan joined the organisation as a Manager in 1987 and was 30 years old as on 15th August, 1993. He has four members in his family. Neither he nor his wife owns a house.
13. Naman Chille stays in a rented house with his wife and three children. His date of birth is 12th July, 1949. He has been working in the organisation for the last 13 years out of which 8 years as a Manager.
14. Mohanlal Kashi has recently been transferred from another office and was 57 years old as on 6th February, 1996. He has been working in the organisation for the last twenty years out of which ten years as a Senior Manager. There are four members in his family. Neither he nor his wife owns a house.
15. Sohan Kumar has three members including himself in the family. Neither he nor his wife owns a house. He is a Senior Manager for the last four years and has been working in the organisation for the last twelve years. He will be retiring from the organisation in the year 2005.

Directions (16 – 20): Study the table carefully and answer the questions given below.

Study the following information carefully and answer the questions given below it:



Following are the criteria for allotment of plots by an organisation to its employees.

The employee must:

- (1) Have completed at least 10 years in this unit of the organisation out of which at least 4 years in the supervisory cadre.
- (2) Not have more than five members in the family.
- (3) Have at least 5 years of service remaining, the retirement age being 58 years.
- (4) Not have his/her own house.
- (5) Not be staying in a house owned by his/her spouse. In the case of an employee who:
- (6) Satisfies all other criteria except at (1) above and joined the organisation as a manager, should be referred to the Director, Finance.
- (7) Satisfies all other criteria except at (3) above at present working as a Senior Manager, is to be referred to the Managing Director.
- (8) Has been transferred from another city, the condition (1) may be waived.

Based on the above criteria and on the basis of the information provided in case of each employee in each of the following questions, you have to decide whether or not, accommodation is to be provided or the case is to be referred to higher authority. You are not to assume anything. All the cases are presented before you as on 31st July, 1996.

Mark answer:

- A. If the employee is to be provided with accommodation;**
- B. If the employee is not to be provided with accommodation;**
- C. If the complete information as regards all the above criteria are not provided in the question;**
- D. If the case is to be referred to the Director, Finance;**
- E. If the case is to be referred to the Managing Director.**

16. Geeta Mathur joined the organisation in 1979 when she was twenty-eight years old as an Officer. She is unmarried and stays with her mother in a rented house. She does not own a house.
17. Anuj Prakash has been working in the organisation for the last seven years out of which five years as an Officer. He was 52 years old as on 5th May, 1994. He stays with his wife and one son. Neither he nor his wife owns a house.
18. Mayur Jaali was promoted as a Supervisor five years back after joining the organisation in 1983 as a clerk. He stays with his wife and mother in a rented house and he does

not own any house. He was 42 years old as on 23rd April, 1995.

19. Firoze Barke has been working in this unit for the last 15 years and has one son and two daughters along with his wife in the family. Neither he nor his wife owns a house. His date of birth is 12th January, 1954.
20. Buliya Sharma has been working in the organisation for the last ten years out of which five years as an Officer. Her date of birth is 18th June, 1944. She stays with her husband and three children. Neither she nor her husband owns a house.

Directions (21 – 25): Study the table carefully and answer the questions given below.

Study the following information carefully and answer the questions given below it.

Following are the conditions to appoint a Distributor for petroleum gas throughout Perth:

The applicant should-

- (1) Be an Australian by nationality.
 - (2) Be in the age group of 23-50 years on 15th October, 2000.
 - (3) Be minimum Matriculate or recognised equivalent.
 - (4) Be a resident of Perth for not less than 5 years immediately preceding the date of application.
 - (5) Have family income of not more than A\$ 60,000 annually.
 - (6) not have any dealership in any oil company.
 - (7) Have no close relatives as a dealer/distributor of any oil company.
- However,
- (8) Restrictions relating to annual income, would not be applicable to persons working in corporations, owned or controlled by State government, but the case shall be referred to the Managing Director.
 - (9) For unemployed graduates, conditions at (6) And (7) may be waived.
 - (10) If a person belongs to SC/ST but is not a resident of Perth, the case may be referred to the Chairman.

On the basis of the above conditions and the information provided against each applicant, decide which of the following courses of action should be taken.

Mark answer:

- A. If the applicant is selected;**
- B. If the candidate is not selected;**
- C. If the data is inadequate;**
- D. If the case is to be referred to the Managing Director and**
- E. If the case is to be referred to the Chairman.**



21. Kevin Hare is an unemployed graduate who has been living in Perth since 1987. He is a citizen of Australia and his date of birth is 2nd February, 1974. His father is the only earner in the family drawing A\$ 800 per month.
22. Rick Smith is a matriculate who has been living in Perth since August 1992. He was born on 7th November 1957. His family income is less than A\$ 25,000 per annum and he has no close relatives as a dealer of any oil company.
23. Norton Adams born on 22nd January, 1967 is an Australian by nationality. He is a matriculate having dealership in Graham Oil Company. His family income is A\$ 21,000 per annum and he is a resident of Perth since 1978. He has no close relatives as dealer/distributor in any oil company.
24. Nick Barbage working in the State Corporation is an Australian by nationality and is 23 years of age. He is a graduate and his family income is A\$ 70,000 per annum. He has been in Perth for 7 years. He does not himself nor has any of his relatives working as distributor or dealer in any oil company.
25. Bill Weasley, an Australian born in 1974, is an Intermediate staying in Perth since 1983. He does not hold any dealership in any oil company and the income of his mother, the sole earner, is not more than A\$ 400 per month.

Directions (26 – 30): Study the table carefully and answer the questions given below.

Study the following information carefully and answer the questions given below it.

Following are the conditions to appoint a Distributor for natural gas throughout Ottawa:

The applicant should–

- (1) Be a Canadian by nationality.
- (2) Be in the age group of 21–50 years on 5th September, 1997.
- (3) Be minimum Matriculate or recognised equivalent.
- (4) Be a resident of Ottawa for not less than 5 years immediately preceding the date of application.
- (5) Have family income of not more than C\$ 50,000 annually.
- (6) not have any dealership in any gas company.
- (7) Have no close relatives as a dealer/distributor of any gas company.

However,

- (8) Restrictions relating to annual income, would not be applicable to persons working in corporations, owned or controlled by State government, but the case shall be referred to the Managing Director.

- (9) For unemployed graduates, conditions at (6) and (7) may be waived.

- (10) If a person belongs to SC/ST but is not a resident of Ottawa, the case may be referred to the Chairman.

On the basis of the above conditions and the information provided against each applicant, decide which of the following courses of action should be taken.

Mark answer:

A. If the applicant is selected;

B. If the candidate is not selected;

C. If the data is inadequate;

D. If the case is to be referred to the Managing Director and

E. If the case is to be referred to the Chairman.

26. Cooper, a Canadian resident of Vancouver, is a matriculate with a family income of C\$ 20,000 per annum. His date of birth is 15.3.76. He does not have any dealership in any gas company nor has any close relative as dealer or distributor. He is an SC candidate.
27. 27 years old Canadian, Gabriel Hoffman is an unemployed graduate and a resident of Ottawa since 1988. He has a family income of C\$ 16,000 per annum.
28. Mike Ross working in Toronto State Corporation, has been living in Ottawa for 5 years and has passed Senior Secondary. He is a citizen of Canada born on 13th June, 1973. His family's annual income is C\$ 75,000. Neither he nor any of his relatives has a dealership or distributorship of any oil company.
29. Tom Bray, aged 33 years, is an unemployed graduate and a Canadian by nationality. His family income is C\$ 55,000 annually and he has been living in Ottawa for 12 years now.
30. Harvey Brooks, a Canadian citizen, has no dealership in any gas company nor has any close relatives doing the same job. His family income is C\$ 1,500 per month.

Directions (31 – 33): Study the table carefully and answer the questions given below.

Read the following information carefully and answer the questions based on the given information.

Following are the criterion for admitting a student in an Engineering course. The student must–

- (1) Have passed XII Std. Maths and have secured at least 65% marks.
- (2) Be of 18 years of age as on September 1, 1998.
- (3) Have obtained 75% marks in the entrance test.
- (4) Be able to pay Rs. 35,000 at the time of admission.



In the case of a candidate, who satisfies all other criterion except at:

(5) (3) above, but has obtained 90% marks in the 12th Maths examination, should be referred to the principal.

(6) (4) above, but can pay Rs. 15,000 at the time of admission, can be provisionally admitted.

You are given the following cases as on September 1, 1998. Depending upon the information provided in each case and based on the criterion mentioned above, recommend your decision. You are not to assume anything.

Mark answer:

A. If the student is to be admitted;

B. If the student is not to be admitted;

C. If the student is to be referred to the principal;

D. If the student is to be admitted provisionally, and give answer

E. If the data are inadequate.

31. Govind Laud was born on 3rd October, 1980. He has secured 90% marks in the XIIth Std. Maths examination and 60% marks in the entrance test. He can pay the admission fees of Rs. 35,000.
32. Navin Shah secured 60% marks in the XIIth Std. Maths exam. He secured 75% marks in the entrance test and can pay admission fee of Rs. 15,000 at the time of admission.
33. Rasila Seth was born on 20th October, 1975. She has secured 68% marks in her XIIth Std. Maths examination in and has secured 79% marks in the entrance test. She can pay the admission fee of Rs. 35,000.

Directions (34 - 37): Study the table carefully and answer the questions given below.

Read the following information carefully and answer the questions based on the given information.

Following are the criterion for admitting a student in an Architecture course. The student must-

(1) Have passed XIIth Std. Science examination with Physics and have secured at least 60% marks.

(2) Be of 18 years of age as on September 1, 1994.

(3) Have obtained 70% marks in the entrance test.

(4) Be able to pay Rs. 20,000 at the time of admission.

In the case of a candidate, who satisfies all other criterion except at:

(5) (3) above, but has obtained 90% marks in the XIIth Std. Science examination, should be referred to the Principal.

(6) (4) above, but can pay Rs. 10,000 at the time of admission, can be provisionally admitted.

You are given the following cases as on September 1, 1994. Depending upon the information provided in each case and based on the criterion mentioned above, recommend your decision. You are not to assume anything.

Mark answer

A. If the student is to be admitted;

B. If the student is not to be admitted;

C. If the student is to be referred to the principal;

D. If the student is to be admitted provisionally, and give answer

E. If the data are inadequate.

34. Neel Shah was 17 years old as on 11th September, 1993. He has secured 90% marks in his XIIth Std. Science examination with Physics. He has secured 75% marks in the entrance test and can pay the admission fee of Rs. 20,000.
35. Radhika Patel has secured 70% and 80% marks in XIIth Std. and entrance test respectively. Her date of birth is 9.6.1976. She can pay the admission fee of Rs. 12,000.
36. Gautam Morvi was born on 4th July, 1976. He has secured 80% marks in the entrance test. He has secured 85% marks in the XIIth Std. Science examination with Physics. He can pay the admission fee of Rs. 15,000.
37. Leela Balachandra has secured 70% marks in the entrance test and 60% marks in her XIIth Std. Science examination with Physics. She can pay the admission fee of Rs. 20,000 and was born on 7th November 1978.

Directions (38 - 42): Study the table carefully and answer the questions given below.

Read the following directions and answer the questions given below it:

The Selection Committee of a company laid down the following criteria of selection for the post of Manager - Accounts:

(1) The candidate must be a post-graduate in Commerce.

(2) The candidate must have completed 21 years and should not be more than 35 years as on 31.7.1996.

(3) If the candidate does not satisfy the criterion in (1) above but has completed his CFA examination he will be referred to Director - Finance, who can allow the candidate to appear in the interview if otherwise eligible.

(4) If the candidate fulfils all the criteria mentioned in (1) and (2) above, he/she will be called for group discussion.



(5) The candidate must get 50% marks to qualify in the group discussion.

(6) If the candidate qualifies in the group discussion, he/she will be called for interview.

(7) The candidate must get 30% marks in the interview (out of 50) to get finally selected.

Based on the above criteria, decide which of the following courses of action should be taken in the case of candidates described in each of the following questions.

Mark answer:

A. If the candidate can be selected;

B. If the candidate is to be referred to Director – Finance;

C. If the candidate can be called for group discussion;

D. If the candidate can be called for interview;

E. If the candidate cannot be selected.

38. Mr. Singh is M.Com. and his date of birth is 30.6.1961.

39. Mrs. Murli is a qualified CFA and was 25 years old on 31.7.1987.

40. Mr. Sharma, a post-graduate with Commerce obtained 70% marks in group discussions and secured 20 marks in interview. He was 35 years as on 31.7.1996.

41. Mrs. Sinha is a post-graduate in Economics and her date of birth is 3.4.1965.

42. Mr. Parekh, a post-graduate was permitted by Director – Finance. He was born on 30.5.1963. He obtained 12 marks in interview.

Directions (43 – 47): Study the table carefully and answer the questions given below.

Read the following directions and answer the questions given below it:

The Selection Committee of a company laid down the following criteria of selection for the post of Manager – Accounts:

(1) The candidate must be a post-graduate in Commerce.

(2) The candidate must have completed 21 years and should not be more than 35 years as on 31.7.1996.

(3) If the candidate does not satisfy the criterion in (1) above but has completed his CS examination he will be referred to Director – Finance, who can allow the candidate to appear in the interview if otherwise eligible.

(4) If the candidate fulfils all the criteria mentioned in (1) and (2) above, he/she will be called for group discussion.

(5) The candidate must get 50% marks to qualify in the group discussion.

(6) If the candidate qualifies in the group discussion, he/she will be called for interview.

(7) The candidate must get 30% marks in the interview (out of 50) to get finally selected.

Based on the above criteria, decide which of the following courses of action should be taken in the case of candidates described in each of the following questions.

Mark answer

A. If the candidate can be selected;

B. If the candidate is to be referred to Director – Finance;

C. If the candidate can be called for group discussion;

D. If the candidate can be called for interview;

E. If the candidate cannot be selected.

43. Mr. Malwa is a Ph.D. in Commerce and was 34 years old on 1.8.1995. He obtained 14 marks in interview.

44. Mr. Alan is a Commerce graduate, has passed his CS examination and was born on 18.4.1974.

45. Mr. Subo whose date of birth is 4.5.1965 is a post-graduate with Commerce and has obtained 60% marks in the interview.

46. Mr. Diwakar who was born on 4.5.1965 did M.Com. one year back, he was the top candidate in the group discussion.

47. Mr. Jugger, a post-graduate with Commerce, born on 3.4.1962, obtained 60% marks in group discussion.

Directions (48 – 50): Study the table carefully and answer the questions given below.

Read the following information carefully and answer the questions given below it.

Following are the conditions for selecting managers by a company. The candidate must–

(1) Be a graduate in Computer Science with 60% marks.

(2) Have SUN Certification or Microsoft Certification as conditional qualification.

(3) Have worked at least 10 years in supervisory position.

(4) Not be more than 40 years as on 20.3.1993.

(5) Have fluency in English and Hindi.

In the case of a candidate – (6) who fulfils all conditions except at (1) above but has post-graduate degree with C or C++, the case will be referred to the Technical Director.

(7) Who fulfils all conditions except at (2) above but has an M.B.A. degree from a reputed management institute, the case will be referred to the Managing Director.

(8) Working in the same company for the last 15 years as a coder, the condition at (3) above may be waived but the case will have to be referred to the General Manager – Coding for his comments.



(9) Who does not provide the complete information, the application will be rejected and the candidate will not be selected even if he satisfies all other conditions.

On the basis of the above conditions and the information provided in each question below, decide which of the following courses of action should be taken against each candidate.

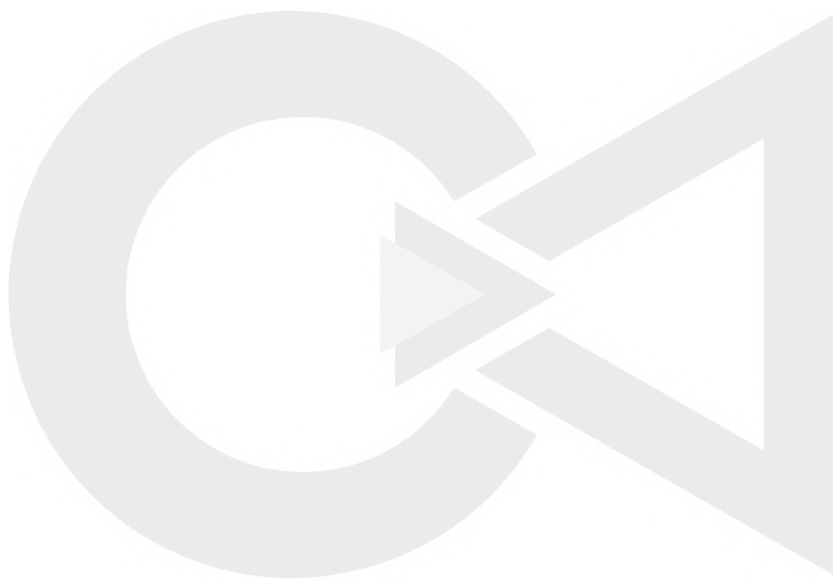
Mark answer:

- A. If the candidate is not to be selected;**
- B. If the candidate is to be selected;**
- C. If the case is to be referred to the General Manager -Coding;**
- D. If the case is to be referred to the Director - Technical; and**
- E. If the case is to be referred to the Managing Director.**

48. Raj Rajeshwari is a first-class Computer Science graduate and has completed his M.B.A. course from a reputed management institute. He was 35 years old as on 18th September, 1992. He is fluent in English and Hindi. He has been working as a supervisor for the last six years.
49. Sparshi Mittal is a Computer Science graduate with 68% marks. She was 34 years old as on 5th January, 1993. She is fluent in Hindi and English and also has a Microsoft Certification. She has been working in an organisation as a supervisor for the last 16 years.
50. Aditya Dhoka has achieved M.B.A. degree from Delhi and has done graduation in Computer Science with 70% marks, but is not Microsoft Certified, or SUN Certified. His date of birth is 13th February, 1953. He has achieved fluency in English and Hindi and has been working as supervisor in the MAMU Computer Company since 1976.

**ANSWER KEY:**

1) E	11) C	21) A	31) B	41) E
2) A	12) D	22) C	32) E	42) E
3) B	13) C	23) B	33) A	43) E
4) A	14) E	24) D	34) B	44) B
5) C	15) D	25) C	35) E	45) A
6) A	16) A	26) E	36) D	46) D
7) C	17) B	27) A	37) B	47) D
8) D	18) A	28) D	38) E	48) A
9) E	19) C	29) B	39) B	49) B
10) A	20) A	30) C	40) A	50) E





CRITICAL REASONING

Exercise – 1

Strong and Weak argument

In making decisions about important questions, it is desirable to be able to distinguish between strong arguments and weak arguments. Strong arguments are those which are both important and directly related to the question. Weak arguments are those which are of minor importance and also may not be directly related to the question or may be related to a trivial aspect of the question. Each question below is followed by two arguments numbered I and II. You have to decide which of the arguments is a strong argument and which is a weak argument.

Give answer:

(A) if only argument I is strong;

(B) if only argument II is strong;

(C) if either I or II is strong;

(D) if neither I nor II is strong and;

(E) if both I and II are strong.

1. Statement: Should selection tests be objective type or descriptive type?
Arguments:
I. Objective. The assessment of answers of objective type questions is fair and impartial.
II. Descriptive. The descriptive type test is certainly a better tool than the objective type test.
2. Statement: Should state lotteries be stopped?
Arguments:
I. Yes. Government should not promote gambling habits.
II. No. Government will lose a large amount of revenue.
3. Statement: Should India have no military force at all?
Arguments:
I. No. Other countries in the world do not believe in nonviolence.
II. Yes. Many Indians believe in non- violence.
4. Statement: Should personal tax be abolished in India?
Arguments:
I. Yes. It will motivate people to earn more.
II. No. Individuals must learn to share their wealth with other people.
5. Statement: Should articles of only deserving authors be allowed to be published?

Arguments:

- I. Yes. It will save a lot of paper which is in short supply.
 - II. No. It is not possible to draw a line between the deserving and the undeserving.
6. Statement: Should taxes on colour television be further increased?
Arguments:
I. Yes. Color television is a luxury item and only rich people buy them.
II. No. Televisions are bought by the poor too.
 7. Statement: Should loyalty be the only criterion for promotion in any organization?
Arguments:
I. Yes. Without loyal personnel no organization can function.
II. No. It leads to hypocrisy and partiality.
 8. Statement: Should the political parties be banned?
Arguments:
I. Yes. It is necessary to teach a lesson to the politicians.
II. No. It will lead to an end of democracy.
 9. Statement: Should fashionable dresses be banned.
Arguments:
I. Yes. Fashions keep changing and hence consumption of cloth increases.
II. No. Fashionable clothes are a person's self-expressions and therefore his/her fundamental right.
 10. Statement: Should India manufacture atom bombs?
Arguments:
I. Yes. It is imperative to protect the sovereignty and integrity of the country.
II. No. This will create imbalance in the power of nations in this region.
 11. Statement: Should slum dweller be provided free houses in big cities and metropolises?
Arguments:
I. No. most of the slum dwellers are poor and illiterate.



- II. Yes, providing food and shelter to every citizen is the responsibility of any welfare state.
12. Statement: Should Polythene Bags be banned in India?
Arguments:
- I. No. The polythene bags are very cheap and are very convenient.
- II. Yes. That is what many countries are doing.
13. Statement: Should military service for short duration be made compulsory to all eligible youth in India?
Arguments:
- I. Yes. Indian defence forces are badly in need of jawans and officers.
- II. Yes. It will inculcate discipline and national pride in youth.
14. Statement: Should private sector be permitted to operate telephone services?
Arguments:
- I. Yes. They are operated in advanced western countries.
- II. No. It is risky to put them in private hands.
15. Statement: Should there be only one university throughout India?
Arguments:
- I. Yes. This is the only way to bring about uniformity in the educational standards.
- II. No. This is administratively impossible.
16. Statement: Should workers be allowed to participate in the management of factories in India?
Arguments:
- I. Yes. It is the present management theory.
- II. No. Many workers are illiterate and so their contributions will not be of any value.
17. Statement: Should non- vegetarian food be totally banned in our country?
Arguments:
- I. Yes. It is expensive and therefore it is beyond the means of most people in our country.
- II. No. Nothing should be banned in a democratic country like ours.
18. Statement: Should telecasting feature films be stopped?
Arguments:
- I. Yes. Young children are misguided by the feature films.
- II. No. This is the only way to educate the masses.
19. Statement: Should smoking be prohibited?

Arguments:

- I. Yes. It is wrong to smoke away millions of money.
- II. No. It will throw thousands of workers in the tobacco industry out of employment.
20. Statement: Should those who receive dowry, despite the law prohibiting it, be punished?
Arguments:
- I. Yes. Those who violate the law must be punished.
- II. No. Dowry system is firmly rooted in the society since time immemorial.
21. Statement: Should one's close relative of a retiring government employee be given a job in the government of India?
Arguments:
- I. Yes where else will the relatives get a job like this?
- II. No. it will close doors of government service to competent and needy youth.
22. Statement: Should purchase of gold by individuals be restricted in India to improve its foreign exchange positions?
Arguments:
- I. Yes. interface on customer's right and freedom is desirable.
- II. No. business interest has to be guarded first.
23. Statement: Should teaching of 'Sanskrit' be made compulsory at school level in India?
Arguments:
- I. No. where are the trained teachers to teach this language.
- II. Yes. we should be proud of our ancient language.
24. Statement: Should all education be made free for girls and women of all ages of India?
Arguments:
- I. No. this will weaken our present social structures.
- II. Yes. this is the only way to bring back glory to Indian women hood.
25. Statement: Should private colleges offering professional courses like Engineering, Medical, Management be banned in India?
Arguments:



I. Yes, such courses should be run by Government Colleges only.

II. Yes, no other country allows private colleges to run professional courses.

26. Statement: Should Doordarshan be given autonomous status?

Arguments:

I. Yes. It will help Doordarshan to have fair and impartial coverage of all important events.

II. No, the coverage of events will be decided by a few who may not have healthy outlook.

27. Statement: Should adult education programme be given priority over compulsory education programmes?

Arguments:

I. No. It will also help in success of compulsory education program.

II. Yes, it will help to eliminate the adult illiteracy.

28. Statement: Should India go in for computerization in industry?

Arguments:

I. No Computerization demands a lot of money. We should not waste money on it.

II. Yes, when advanced countries are introducing computers in various areas, how can India afford to lag behind?

29. Statement: Should new big industries be started in Bombay ?

Arguments:

I. Yes. It will create new job opportunities.

II. No. It will further add to the pollution of the city.

30. Statement: Should higher education be completely stopped for some time ?

Arguments:

I. No. It will hamper the country's future progress.

II. Yes. It will reduce the educated unemployment.


Exercise – 2
STATEMENT ASSUMPTIONS

In each question below a statement is given followed by assumptions numbered I and II. You are required to assess the two assumptions and decide which of the given assumptions is/are implicit in the given statements and mark your answer as

- (A) If only assumption I is implicit.
 (B) If only assumption II is implicit.
 (C) If neither I nor II is implicit.
 (D) If either I or II is implicit.
 (E) If both the statements are implicit.

1. Statement: "Regular exercise is essential for maintaining good health."
 Assumptions:
 - I. People are aware of the benefits of regular exercise
 - II. People have access to facilities for exercise
2. Statement: "All birds can fly."
 Assumptions:
 - I. Birds have wings
 - II. All birds are capable of sustained flight
3. Statement: "Implementing strict gun control laws will reduce instances of gun-related violence."
 Assumptions:
 - I. Access to firearms is a significant factor contributing to gun-related violence
 - II. Enforcing strict gun control laws will effectively limit access to firearms
4. Statement: "Promoting education for girls in developing countries leads to social and economic empowerment."
 Assumptions:
 - I. Gender inequality in education is a significant barrier to social and economic empowerment in developing countries
 - II. Providing education to girls will result in increased opportunities for their social and economic advancement
5. Statement: "Implementing a flexible work-from-home policy improves employee productivity."
 Assumptions:
 - I. Employees have the necessary infrastructure and resources to work effectively from home
 - II. Reduced commuting time and increased work-life balance positively impact employee productivity

6. Statement: "Raising taxes on high-income earners will reduce income inequality."
 Assumptions:
 - I. High-income earners have a significantly higher share of total income
 - II. Higher taxes on high-income earners will result in redistributive measures to support lower-income individuals
7. Statement: "Increasing government spending on infrastructure projects stimulates economic growth."
 Assumptions:
 - I. Infrastructure development has a multiplier effect on other sectors of the economy
 - II. Increased government spending on infrastructure does not lead to an unsustainable fiscal deficit
8. Statement: "Providing early childhood education enhances cognitive development in children."
 Assumptions:
 - I. Early childhood is a critical period for cognitive development
 - II. High-quality early childhood education programs are available and accessible to all children
9. Statement: "Promoting renewable energy sources reduces dependence on fossil fuels and mitigates environmental degradation."
 Assumptions:
 - I. The extraction and combustion of fossil fuels contribute to environmental degradation
 - II. Investing in renewable energy technologies can sufficiently meet energy demands
10. Statement: "Investing in the stock market guarantees high returns."
 Assumptions:
 - I. Historical stock market performance indicates a consistent upward trend
 - II. All investments in the stock market are well-researched and diversified
11. Statement: "Implementing a four-day workweek will improve employee work-life balance."
 Assumptions:

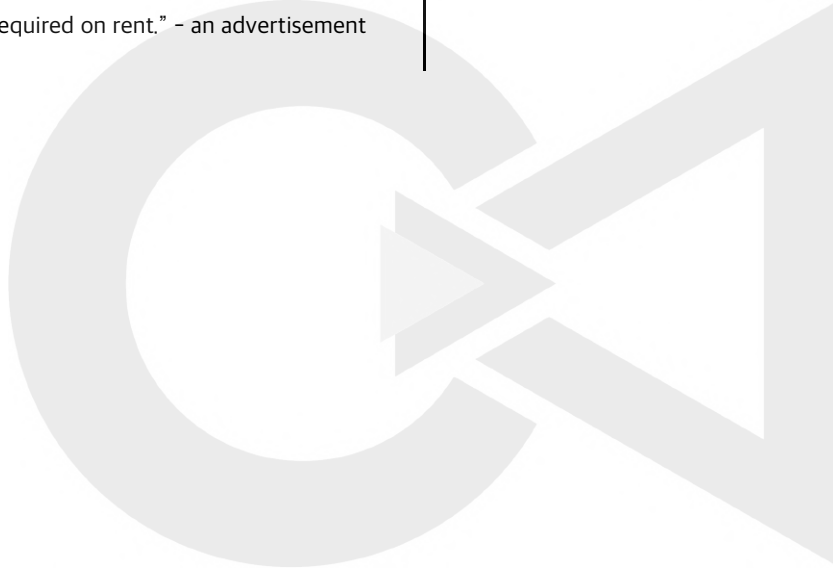


- I. Working longer hours per day during the four-day workweek does not cause excessive stress or burnout
- II. Employees' productivity levels remain consistent even with fewer working days
12. Statement: "Increasing government funding for public schools will lead to better educational outcomes."
Assumptions:
- I. The primary factor limiting educational outcomes in public schools is a lack of financial resources
- II. Increased government funding will be allocated effectively and efficiently to improve educational programs and infrastructure
13. Statement: "Do not lean out of the door of the bus." - a warning in a school bus.
Assumptions:
- I. Leaning out of a running bus is dangerous
- II. Children do not pay any heed to such warnings
14. Statement: "If you are a mechanical engineer, we want you as our supervisor." - an advertisement by company X.
Assumptions:
- I. Mechanical engineers are expected to be better performers by company X
- II. The company X needs supervisors
15. Statement: Be humble even after being victorious.
Assumptions:
- I. Many people are humble after being victorious
- II. Generally, people are not humble
16. Statement: A sentence in the letter to the candidates called for written examinations - 'You have to bear your expenses on travel etc.'
Assumptions:
- I. If not clarified, all the candidates may claim reimbursement of expenses
- II. Many organisations reimburse expenses on travel to candidates called for written examinations.
17. Statement: One of the opposition leaders said that the time had come for like-minded opposition parties to unite and dislodge the corrupt government.
Assumptions:
- I. Like-minded opposition parties should unite only when they have to dislodge a corrupt government
- II. Opposition parties are not corrupt
18. Statement: Postal rates have been increased to meet the deficit.
Assumptions:
- I. The present rates are very low
- II. If the rates are not increased, the deficit cannot be met
19. Statement: If degrees are delinked from jobs, boys will think twice before joining college.
Assumptions:
- I. Boys join colleges to get jobs
- II. A degree is of no use in getting a job
20. Statement: "Present-day education is in a shambles and the country is going to the dogs."
Assumptions:
- I. A good education system is essential for the well-being of a nation
- II. A good education alone is sufficient for the well-being of a nation
21. Statement: "Computer education should start at schools itself."
Assumptions:
- I. Learning computers is easy
- II. Computer education fetches jobs easily
22. Statement: The next meeting of the Governing Board of the Institute will be held after one year.
Assumptions:
- I. The Institute will remain in function after one year
- II. The Governing Board will be dissolved after one year
23. Statement: Please consult me before making any decision on exports from the company.
Assumptions:
- I. You may take a wrong decision if you don't consult me
- II. It is important to take a right decision
24. Statement: Warning: Cigarette smoking is injurious to health.
Assumptions:
- I. Non-smoking promotes health
- II. Really, this warning is not necessary
25. Statement: Children are influenced more by their teachers nowadays.
Assumptions:
- I. The children consider teachers as their models



- II. A large amount of children's time is spent at school
26. Statement: Apart from the entertainment value of television, its educational value cannot be ignored.
Assumptions:
- I. People take television to be a means of entertainment only
 - II. The educational value of television is not realised properly
27. Statement: "If you trouble me, I will slap you." - A mother warns her child.
Assumptions:
- I. With the warning, the child may stop troubling her
 - II. All children are basically naughty
28. Statement: "A car is required on rent." - an advertisement

- Assumptions:
- I. All types of vehicles are available on rent
 - II. People will respond to the advertisement
29. Statement: "Buy pure butter of company A." - an advertisement in a magazine.
Assumptions:
- I. No other company supplies pure butter
 - II. People read advertisement
30. Statement: Of all the radio sets manufactured in India, 'X' brand has the largest sale.
Assumptions:
- I. The sale of all the radio sets manufactured in India is known
 - II. The manufacturing of no other radio set in India is as large as 'X' brand radio




Exercise – 3
Course of Action

Give answer,

(A) If only course of action I follows
(B) If only course of action II follows
(C) If either I or II follows
(D) If neither course of action follows
(E) If both courses of action follow

1. Statement: Drinking water is getting polluted due to leakage in pipes.
 - I. The government should order an enquiry into the matter
 - II. The civic body should set up a fact-finding team to assess the damage and take effective steps.
2. Statement: There is an alarming increase in the number of people suffering from dengue in many parts of the city.
 - I. The municipal corporation has advised all the government hospitals to store adequate supply of dengue drugs
 - II. The municipal corporation has urged people to use mosquito repellents and keep their premises clean
3. Statement: Many people have encroached into the government property and built their houses and started their own businesses.
 - I. The government should take immediate steps to remove all unauthorized constructions on government land
 - II. All the encroachers should immediately be put behind bars
4. Statement: People residing in some tribal zone areas are far from education.
 - I. Schools for children and adults should be opened there
 - II. Social workers should be entrusted with the job of educating them
5. Statement: Youngsters are often found playing games on smartphones continuously.
 - I. Children should be penalized and punished if they are found doing so
 - II. Any display of such games should be banned
6. Statement: An increasing number of engineering graduates produced by Indian universities are unemployable.
 - I. Institutes of higher learning should be given greater autonomy to decide course content
 - II. World class foreign universities should be encouraged to set up campuses in India
7. Statement: Heavy rains hit the state during August, just before the State Assembly elections and caused heavy damage to standing crops in most parts of the state.
 - I. Elections should be postponed to give candidates the opportunity to campaign
 - II. The Government should announce a relief package for those who are affected
8. Statement: Cell phone users have found that tariff plans are not as attractive as promoted by telecom companies and complained to regulatory authority about the same.
 - I. The regulatory authority should direct telecom companies to be transparent on the tariff structure of all plans
 - II. The government should restrict the number of telecom companies operating in the country
9. Statement: A number of school children in the local schools have fallen ill after the consumption of their subsidised tiffin provided by the school authority.
 - I. The tiffin facility of all schools should be discontinued with immediate effect
 - II. The government should implement a system to certify the quality of tiffin provided by the school
10. Statement: The dolphin population in India has been decreasing sharply over the past few years.
 - I. Dolphins should be declared an endangered species and be bred in aquariums or protected areas
 - II. Locals should be enlisted to protect dolphins
11. Statement: Cases of road accidents are increasing constantly, particularly in the urban areas.
 - I. Transport Authorities in the urban areas should impose stringent norms for maintenance of vehicles
 - II. Traffic police should severely punish those found to be violating traffic rules
12. Statement: Despite good economic progress of the country, significant number of undernourished children has been observed in the rural parts of the country.



- I. Government should increase Wealth Tax/Income Tax and use that money for upliftment of the deprived class
- II. Government should introduce schemes like free meals in primary schools and make primary education compulsory
13. Statement: Launching of new brands of four wheelers is adding to the traffic congestion in the metro cities.
- I. Public should be encouraged to share their private vehicles while travelling to their work places
- II. Government should levy heavy taxes on motor cars in metro cities
14. Statement: Increasing levels of air-pollution is creating health hazards for people living in the cities.
- I. All industries should be shifted to the outskirts of the cities
- II. Transport Authorities should take steps for converting all public transport vehicles to run on CNG
15. Statement: Large number of college students are found to be focusing more on fashion than on studies.
- I. Colleges should impose restrictions on use of fashionable clothes and accessories
- II. Colleges should keep the students busy enough with studies, so that they can't be able to find the time for fashion
16. Statement: There has been an unprecedented increase in the number of requests for berths in most of the long-distance trains during the current holiday season.
- I. The railway authority should immediately increase the capacity in each of these trains by attaching additional coaches
- II. The hotel booking providers should advise the travelers making bookings to do so after the holiday season ends.
17. Statement: The killer enteric fever has so far claimed 100 lives in some tribal villages in M.P. during the past three weeks.
- I. The residents of these villages should immediately be shifted to a non-infected area
- II. The Government should immediately send a medical squad to this area to restrict spread of the killer disease
18. Statement: Most of those study in premier engineering colleges in India migrate to developed nations for better prospects in their professional pursuits.
- I. All the students joining these colleges should be asked to sign a bond at the time of admission to the effect that they will remain in India at least for ten years after they complete education
- II. All those students who desire to settle in the developed nations should be asked to pay entire cost of their education which the government subsidies
19. Statement: Severe drought is reported to have set in several parts of the country.
- I. Government should immediately make arrangement for providing financial assistance to those affected
- II. Food, water and fodder should immediately be sent to all these areas to save the people and cattle
20. Statement: The Union Ministry of Tourism and civil Aviation has fixed an annual target of Rs 10,000 crores by way of tourism earnings towards the end of the current decade.
- I. There is no need of development of further new tourist spots to meet the target
- II. The Ministry should evolve attractive packages to woo the foreign tourists to meet the target
21. Statement: The car dealer found that there was a tremendous response for the new XYZ's car-booking with long queues of people complaining about the duration of business hours and arrangements.
- I. People should make their arrangement of lunch and snacks while going for car XYZ's booking and be ready to spend several hours
- II. Arrangement should be made for more booking desks and increased business hours to serve more people in less time
22. Statement: The Meteorology Department has forecast that a severe cyclonic storm would hit coastal Andhra Pradesh and Orissa in the next forty-eight hours.
- I. The local administration should advise the fishermen not to go to dangerous area in the sea
- II. The local administration should alert the people of coastal areas of these two states and they should be prepared to shift to safer places



23. Statement: The Committee has criticized the Institute for its failure to implement a dozen of regular programmes despite of increase in the staff strength and not drawing up a firm action plan for studies and research.
- The broad objectives of the Institute should be redefined to implement a practical action plan
 - The Institute should give a report on reasons for not having implemented the planned programmes
24. Statement: Majority of the students in many schools do not pass in the final examination.
- These schools should be closed down as these have become unproductive
 - The teachers of these schools should immediately be retrenched
25. Statement: The Kharif crops have been affected by the insects for three consecutive years in the district and the farmers harvested less than fifty percent of the produce during these years.
- The farmers should seek measures to control the attack of insects to protect their crops next year
 - The Government should increase the support price of Kharif crops considerably to protect the economic interests of farmers
26. Statement: The finance minister submits his resignation a month before the new budget is to be presented in the Parliament.
- The resignation should be accepted and another person should be appointed as the finance minister
 - The resignation should not be accepted
27. Statement: Three persons were caught with huge arms and ammunition in the city.
- Police should be instructed for night patrolling
 - The three persons should be set free and their movements should be carefully watched to nab the other criminals
28. Statement: India today is midstream in its demographic transaction. In the last 60 years there has been an almost continuous decline in mortality; while fertility has declined over the last 20 years. The consequence is that there has been a rapid growth in population over the last 50 years.
- India should immediately revitalize its family planning programme
 - The Government should immediately launch a massive education programme through mass media highlighting the implication of population growth at the present rate
29. Statement: Duty free technology parks where foreign firms can manufacture electronic hardware components are proposed to be established at various places in the country.
- Government should immediately implement the proposal to augment the foreign currency reserve by exporting the products
 - Government should not implement the proposal as it will hinder indigenous production of hardware components
30. Statement: The Asian Development Bank has approved a \$285 million loan to finance a project to construct coal ports by Paradip and Madras Port Trusts.
- India should use financial assistance from other international financial organizations to develop such ports in other places
 - India should not seek such financial assistance from the international financial agencies


Exercise – 4
Statement and Conclusion

In each of the following questions, a statement is given, followed by two conclusions.

Give answer

- (A) if only conclusion I follows,
 (B) if only conclusion II follows,
 (C) if either I or II follows,
 (D) if neither I nor II follows,
 (E) if both I and II follow

1. Statement: Sejal scored 95% marks in the board examination.
 Conclusions:
 I. Sejal topped in her class
 II. Sejal is a bright student
2. Statement: Food in 'RAMOS' restaurant is very costly.
 Conclusions:
 I. The quality of their food is very good
 II. The restaurant has a good ambience
3. Statement: Engaging in reading nurtures one's intellect, participating in conferences cultivates preparedness, and practicing writing hones precision in individuals
 Conclusions:
 I. Extensive writing fosters the development of concise and accurate expression
 II. Extensive reading makes a complete man
4. Statement: Cactus plant has thick leaves and it requires little water
 Conclusions:
 I. All plants with thick leaves require little water
 II. Cactus plants may be grown in places where water is not in abundance
5. Statement: In contrast to the past, the modern individual shapes their own destiny through the choices they make.
 Conclusions:
 I. Earlier there were fewer options available to man
 II. There was no desire in the past to influence the destiny
6. Statement: By utilizing sea transportation, the distance between Mumbai and Porbandar, which currently stands at 650 km by road, will be significantly diminished to 290 km as a result, this mode of transportation will yield an annual fuel cost savings of approximately Rs 834 Crores
 Conclusions:

- I. Transportation by sea is cheaper than that by road
- II. Fuel must be saved to the greatest extent
7. Statement: The product has been brought to the market by the company named 'VISION' If price and quality are important factors for you, feel free to proceed with the purchase
 Conclusions:
 I. The product must be good in quality.
 II. The price of product must be reasonable.
8. Statement: Good voice is a natural gift but one has to keep practising to improve and excel well in the field of music
 Conclusions:
 I. In order to flourish, natural talents need to be nurtured and cared for
 II. Regardless of the quality of one's voice, persistent practice can lead to improvement
9. Statement: A man must be wise to be a good wrangler. Good wranglers are talkative and boring
 Conclusions:
 I. All the wise persons are boring
 II. All the wise persons are wranglers
10. Statement: The national standard for bed availability is set at 120 beds per thousand population. However, in this particular state, the rate stands higher at 160 beds per thousand.
 Conclusions:
 I. Our national standard is deemed suitable or appropriate
 II. The state's health system is taking adequate care in this regard
11. Statement: Nation Z encountered increasing international opposition due to its choice to detonate nine nuclear weapons at its testing site
 Conclusions:
 I. The citizens of the nation favoured the decision
 II. Some powerful countries do not want other nations to become as powerful as they are
12. Statement: National Brass Company has moved Germany from a position of shortage to self-sufficiency in the metal
 Conclusions:
 I. Previously, Germany had to import brass



- II. With this speed, it might soon become a foreign exchange earner
13. Statement: Mangoes prices are soaring in the market.
Conclusions:
I. Mangoes are becoming a rare commodity
II. People cannot eat Mangoes
14. Statement: Death keeps no calendar
Conclusions:
I. Every person is destined to die at some point
II. Death has the potential to occur at any moment
15. Statement: The best way to escape from a problem is to solve it
Conclusions:
I. Your life will be dull if you don't face a problem
II. In order to navigate away from problems, it is essential to have viable solutions readily available
16. Statement: The Government run company had asked its employees to declare their income and assets but it has been strongly resisted by employee's union and no employee is going to declare his income
Conclusions:
I. The employees of this company do not seem to have any additional undisclosed income besides their salary
II. The employees union wants all senior officers to declare their income first
17. Statement: India is seeking partnership with Russia in aeronautical engineering and space exploration Earlier, India entered into partnership with some other countries in aeronautical engineering
Conclusions:
I. It is high time for joint venture between the Russia and India, because Russia is developing State-of-the-art technologies in aeronautical engineering
II. Both India and Russia, have core competence in the given area
18. Statement: Wind is considered an abundant and renewable energy source, and it can be harnessed to generate electricity through the use of aerogenerators. While advancements in this field are still relatively limited, surveys indicate significant potential for the development of wind energy as a viable alternative source.
Conclusions:

- I. The utilization of wind energy is a relatively new and emerging field in the energy sector.
II. Exploring further in the field of aerogeneration holds the potential to address the energy crisis effectively.
19. Statement: Monitoring has become an essential component in the planning of social development programs. It is suggested that a Management Information System (MIS) be established for all programs. This system is expected to provide valuable feedback on the performance of individuals involved and the effectiveness of service delivery.
Conclusions:
I. It is necessary to conduct evaluations for all social development programs
II. There is a need to monitor the performance of workers
20. Statement: The Art Gallery showcases paintings by a particular artist, allowing the general public to view them However, the prices assigned to these paintings are often unaffordable for the average person
Conclusions:
I. The average person tends to acquire paintings from alternative sources or locations outside of the Art Gallery, where the prices are more within their financial means
II. The Art Gallery typically exhibits expensive paintings, which are priced at a higher range compared to other locations or sources
21. Statement: Yesterday's unfortunate incident involving a pedestrian being hit by a car has once again drawn attention to the highly unsatisfactory condition of the roads.
Conclusions:
I. The accident that occurred resulted in a fatality
II. Due to the unsatisfactory condition of the roads, several accidents have already occurred
22. Statement: In a T20 cricket match, the total runs made by a team were 250 Out of these 130 runs were made by fast bowler
Conclusions:
I. 70% of the team consists of fast bowler
II. The opening batsmen were fast bowler



23. Statement: The domestic demand for crude oil has been growing at a faster rate than the production of domestically sourced crude oil

Conclusions:

- I. Crude oil must be imported
- II. Domestic demand should be reduced

24. Statement: The Chief Minister expressed with great emphasis that his government is committed to exerting every possible effort towards the upliftment of impoverished farmers and the improvement of farmland conditions.

Conclusions:

- I. Except poor farmers and farmlands, all others have got benefits of fruits of development
- II. No serious efforts have been made in the past for upliftment of any section of the society

25. Statement: The principal humiliated Suraj in the presence of his friends

Conclusions:

- I. The principal did not like Suraj
- II. Suraj was not popular among his friends

26. Statement: The minimum eligibility for admission to the course is a second-class MTech degree.

Conclusions:

- I. All candidates who have not yet obtained their MTech degrees will be included in the list of selected candidates.
- II. All candidates who have obtained a second-class MTech degree will be on the list of selected candidates.

27. Statement: In the current era, numerous telecommunication companies are offering improved

services in the market to compete with foreign counterparts

Conclusions:

- I. They want India to become number one in the field of telecommunication
- II. Company wants to increase customers and gain the top position.

28. Statement: Government has spoiled many top-ranking educational institutions by appointing bureaucrats as Directors of these institutions.

Conclusions:

- I. Government should appoint Directors of the educational institutes taking into consideration the expertise of the person in the area of finance
- II. The Director of the educational institute should have expertise commensurate with the educational work carried out by the institute

29. Statement: Quality has a price tag. India is allocating lots of funds to education.

Conclusions:

- I. Quality of education in India would improve soon.
- II. Funding alone can enhance quality of education.

30. Statement: In India, more emphasis should be placed on areas such as agriculture, engineering and technology instead of basic and pure sciences

Conclusions:

- I. India has achieved sufficient progress in basic and pure sciences
- II. In the past, the productivity factor in our economy was neglected.


Exercise – 5
Cause & Effect

Directions: In each of the following questions, two statements numbered I and II are given. There may be cause and effect relationship between the two statements. These two statements may be the effect of the same cause or independent causes. These statements may be independent causes without having any relationship.

Read both the statements in each question and mark your answer as.

(A) If statement I is the cause and statement II is its effect;

(B) If statement II is the cause and statement, I is its effect;

(C) If both the statement I and II are independent causes;

(D) If both the statements I and II are effects of independent causes; and

(E) If both the statements I and II are effects of same common causes.

1. Statements:

- I. The prices of vegetables have significantly risen during the course of this summer.
- II. The summer season has witnessed an immense rise in temperature, leading to extensive damage to crops.

2. Statements:

- I. The police employed a lathi-charge as a means to scatter the sizable group of individuals participating in an unlawful gathering.
- II. In protest against the police atrocities, the citizen's forum declared a general strike.

3. Statements:

- I. The city's civic authority is committed to achieving a 20% reduction in air pollution within the upcoming two months.
- II. The incidence of asthma cases in the city is continuously on the rise.

4. Statements:

- I. The police authority has recently apprehended a group of individuals involved in housebreaking.
- II. The local citizens' group has initiated nighttime surveillance in the area.

5. Statements:

- I. Under its jurisdiction, the university authority has issued instructions to all affiliated colleges,

directing them to prohibit the use of phones within the college premises.

- II. A significant majority of teachers from various colleges have collectively signed a petition addressed to the university, expressing their concerns about the disruptions caused by cell phone ring-tones inside the classrooms.

6. Statements:

- I. The government has recently established new fee structures for professional courses offered by unaided institutions, significantly reducing the fees compared to the previous year.
- II. Last year, the parents of aspiring students initiated a vigorous protest, expressing their discontent with the exorbitant fees imposed by unaided institutions.

7. Statements:

- I. Over the past few days, a significant number of individuals residing in low-lying areas have been relocated to safer locations through evacuation measures.
- II. The government has swiftly dispatched relief supplies to assist the residents residing in the affected areas.

8. Statements:

- I. The majority of students performed exceptionally well in the final examination of Class X in government-run schools.
- II. Several teachers from government schools have resigned and transitioned to private schools.

9. Statements:

- I. A significant majority of residents in the locality belong to the higher income group.
- II. The sales in the local supermarket are significantly higher when compared to other nearby areas.

10. Statements:

- I. There has been a significant decrease in the number of individuals affected by waterborne diseases in City A during this rainy season.
- II. At the start of the year, the government inaugurated four new civil hospitals in City A.



11. Statements:
- I. Over the past four years, the literacy rate in the district has been steadily increasing.
 - II. The district administration has organized comprehensive training programs for the workers engaged in the literacy drive.
12. Statements:
- I. The increase in budgetary allocation for enhancing the railway network, such as the construction of new railway lines, has occurred.
 - II. The number of passengers choosing air travel has experienced a significant decline.
13. Statements:
- I. Rural and semi-urban regions in the nation have been enduring the effects of load shedding for a considerable duration.
 - II. Unless the Government successfully addresses the power crisis, load shedding will be expanded to include urban areas as well.
14. Statements:
- I. The employees of the largest bank in the country have announced an indefinite strike starting from the third day of the upcoming month.
 - II. The week-long demonstrations by the employees of the Central Government have been called off.
15. Statements:
- I. The school administration has requested the 10th-grade students to participate in special classes scheduled for Sundays.
 - II. The parents of the 10th-grade students have decided to discontinue their children's attendance at private tuition classes held on Sundays.
16. Statements:
- I. The farmers have made the decision not to sell their Kharif crops to the Government agencies.
 - II. The Government has implemented a reduction in the procurement price of Kharif crops, effective from last month and continuing for the next six months.
17. Statements:
- I. The government has made the decision to provide the general public with access to all information pertaining to primary education.
 - II. Previously, the general public was not granted access to all this information concerning primary education.
18. Statements:
- I. The present-day life is characterized by a fast pace, high demands, and a multitude of options in all aspects, which can occasionally result in stressful situations.
 - II. There has been a rise in the number of suicide cases among teenagers.
19. Statements:
- I. The number of young unemployed individuals has witnessed an unprecedented increase compared to the previous year.
 - II. A significant number of candidates have submitted applications in response to a bank's advertisement for the position of a manager.
20. Statements:
- I. The schools in the area had to remain closed for a significant portion of the week.
 - II. Numerous parents have decided to remove their children from the local schools.
21. Statements:
- I. There has been a significant surge in incidents of atrocities against women in the city over the past few months.
 - II. The police authorities have been unsuccessful in apprehending the culprits responsible for the crimes against women.
22. Statements:
- I. The prices of petrol and diesel in the domestic market have remained stable for the past few months.
 - II. There has been a significant increase in crude oil prices in the international market over the last few months.
23. Statements:
- I. As per a trade agreement with other countries, the Government has imported significant quantities of sugar.
 - II. The prices of sugar in the domestic market have experienced a significant decline in recent months.



24. Statements:

- I. This year, India has exceeded the value of tea exports compared to all previous years, primarily due to an upsurge in demand for quality tea in the European market.
- II. Over the past two years, there has been an increase in the demand for coffee in the domestic market.

25. Statements:

- I. The water level of all the water tanks that supply drinking water to the city has risen in the past two weeks.
- II. Last week, a significant number of trains had to be cancelled due to water-logging on the tracks.

26. Statements:

- I. There has been an increase in the cut-off percentage for admission to junior colleges this year compared to the previous year.
- II. The performance of students in the Xth final exams this year was significantly higher than that of the previous year.

27. Statements:

- I. The conditions of a majority of the national highways are in a deteriorated state.
- II. The government has recently allocated a substantial amount of funds to undertake maintenance and repair work on the national highways.

28. Statements:

- I. A considerable number of students from the local school have not passed the English Language paper in the annual examination.
- II. Many students from the local school have not cleared the mathematics paper in the annual examination.

29. Statements:

- I. The city experienced rain and thunder showers over the past three days.
- II. Due to the weather conditions, a significant number of people stayed indoors during the past three days.

30. Statements:

- I. The sale of fat-free food products has witnessed a significant increase.

- II. This rise in sales can be attributed to people becoming more health-conscious and mindful of their dietary habits.

Directions (31-40): Below in each of the questions are given two statements I and II. These statements may be either independent causes or may be effects of independent causes or a common cause. One of these statements may be the effect of the other statements.

Read both the statements and decide which of the following answer choice correctly depicts the relationship between these two statements.

Mark answer

- (A) If statement I is the cause and statement II is its effect.
- (B) If statement II is the cause and statement I is its effect.
- (C) If both the statements I and II are independent causes.
- (D) If both the statements I and II are effects of independent causes.
- (E) If both the statements I and II are effects of some common cause.

31. Statements:

- I. The farmers have made the decision not to sell their Kharif crops to the Government agencies.
- II. The Government has lowered the procurement price of Kharif crops from last month and intends to maintain the reduced price for the next six months.

32. Statements:

- I. A large number of people visited the religious place over the weekend.
- II. Only a small number of people visited the religious place during the weekdays.

33. Statements:

- I. Indian citizens are willing to incur the cost of using environment friendly technology.
- II. Many countries are taking steps to cut their carbon emissions.

34. Statements:

- I. Large number of devotees visited the shrine on Sunday.
- II. Every Sunday, special prayers are offered.

35. Statements:

- I. Recently, car manufacturing companies have raised the prices of mid-sized cars.



- II. The Government has recently raised the duty on mid-sized cars.
36. Statements:
- I. The standard of living among middle-class society has been consistently improving over the past few years.
- II. The Indian economy is experiencing significant growth.
37. Statements:
- I. The Meteorological Department has released a statement indicating a shortfall in monsoon rainfall in several regions of the country.
- II. The Government has revised down the estimated GDP growth from the previous projections.
38. Statements:

- I. The staff of Airport Authorities ended the strike they had been undertaking as a form of protest against privatization.
- II. The staff of Airport Authorities initiated the strike due to concerns about potential job security threats.
39. Statements:
- I. Last night, a massive truck overturned in the middle of the road.
- II. This morning, the police cordoned off the entire area in the locality for half of the day.
40. Statements:
- I. All sections of society are realizing the importance of yoga and exercise.
- II. There is a growing awareness about health in society, especially among the middle-aged group of individuals.

Exercise - 6

1. Which of the following, if true, most logically completes the argument below?
 Manufacturers are now required to make all cigarette lighters child-resistant by equipping them with safety levers. But this change is unlikely to result in a significant reduction in the number of fires caused by children playing with lighters, because children given the opportunity can figure out how to work the safety levers and _____.
- A. the addition of the safety levers has made lighters more expensive than they were before the requirement was instituted
- B. adults are more likely to leave child-resistant lighters than non-child-resistant lighters in places that are accessible to children
- C. many of the fires started by young children are quickly detected and extinguished by their parents
- D. unlike child-resistant lighters, lighters that are not child-resistant can be operated by children as young as two years old
- E. approximately 5,000 fires per year have been attributed to children playing with lighters before the safety levers were required
2. A cost-effective solution to the problem of airport congestion is to provide high-speed ground transportation between major cities lying 200 to 500 miles apart. The successful implementation of this plan would cost far less than expanding existing airports and would also reduce the number of airplanes clogging both airports and airways.
 Which of the following, if true, could proponents of the plan above most appropriately cite as a piece of evidence for the soundness of their plan?
- A. An effective high-speed ground-transportation system would require major repairs to many highways and mass-transit improvements.
- B. One-half of all departing flights in the nation's busiest airport head for a destination in a major city 225 miles away.
- C. The majority of travelers departing from rural airports are flying to destinations in cities over 600 miles away.
- D. Many new airports are being built in areas that are presently served by high-speed ground-transportation system
- E. A large proportion of air travelers are vacationers who are taking long-distance flights.



3. People's television-viewing habits could be monitored by having television sets, when on, send out low-level electromagnetic waves that are reflected back to the sets. The reflected waves could then be analyzed to determine how many persons are within the viewing area of the sets. Critics fear adverse health effects of such a monitoring system, but a proponent responds, "The average dose of radiation is less than one chest x-ray. As they watch, viewers won't feel a thing."
- Which of the following issues would it be most important to resolve in evaluating the dispute concerning the health effects of the proposed system?
- A. Whether the proposed method of monitoring viewership can distinguish between people and pets
 - B. Whether radar speed monitors also operate on the principle of analyzing reflected waves of electromagnetic radiation
 - C. Whether the proposed system has been tried out in various areas of the country or in a single area only
 - D. What uses are foreseen for the viewership data
 - E. Whether the average dose that the proponent describes is a short-term dose or a lifetime cumulative dose
4. The price the government pays for standard weapons purchased from military contractors is determined by a pricing method called "historical costing." Historical costing allows contractors to protect their profits by adding a percentage increase, based on the current rate of inflation, to the previous year's contractual price.
- Which of the following statements, if true, is the best basis for a criticism of historical costing as an economically sound pricing method for military contracts?
- A. The government might continue to pay for past inefficient use of funds.
 - B. The rate of inflation has varied considerably over the past twenty years.
 - C. The contractual price will be greatly affected by the cost of materials used for the products.
 - D. Many taxpayers question the amount of money the government spends on military contracts.
 - E. The pricing method based on historical costing might not encourage the development of innovative weapons.
5. Since the mayor's publicity campaign for Greenville's bus service began six months ago, morning automobile traffic

into the midtown area of the city has decreased 7 percent. During the same period, there has been an equivalent rise in the number of persons riding buses into the midtown area. Obviously, the mayor's publicity campaign has convinced many people to leave their cars at home and ride the bus to work.

Which of the following, if true, casts the most serious doubt on the conclusion drawn above?

- A. Fares for all bus routes in Greenville have risen an average of 5 percent during the past six months.
 - B. The mayor of Greenville rides the bus to City Hall in the city's midtown area.
 - C. Road reconstruction has greatly reduced the number of lanes available to commuters in major streets leading to the midtown area during the past six months.
 - D. The number of buses entering the midtown area of Greenville during the morning hours is exactly the same now as it was one year ago.
 - E. Surveys show that longtime bus riders are no more satisfied with the Greenville bus service than they were before the mayor's publicity campaign began.
6. Patrick usually provides child care for six children. Parents leave their children at Patrick's house in the morning and pick them up after work. At the end of each workweek, the parents pay Patrick at an hourly rate for the child care provided that week. The weekly income Patrick receives is usually adequate but not always uniform, particularly in the winter, when children are likely to get sick and be unpredictably absent.
- Which of the following plans, if put into effect, has the best prospect of making Patrick's weekly income both uniform and adequate?
- A. Pool resources with a neighbor who provides child care under similar arrangements, so that the two of them cooperate in caring for twice as many children as Patrick currently does.
 - B. Replace payment by actual hours of child care provided with a fixed weekly fee based upon the number of hours of child care that Patrick would typically be expected to provide.
 - C. Hire a full-time helper and invest in facilities for providing child care to sick children.



- D. Increase the hourly rate to a level that would provide adequate income even in a week when half of the children Patrick usually cares for are absent.
- E. Increase the number of hours made available for child care each day, so that parents can leave their children in Patrick's care for a longer period each day at the current hourly rate.
7. A researcher discovered that people who have low levels of immune-system activity tend to score much lower on tests of mental health than do people with normal or high immune-system activity. The researcher concluded from this experiment that the immune system protects against mental illness as well as against physical disease. The researcher's conclusion depends on which of the following assumptions?
- A. High immune-system activity protects against mental illness better than normal immune-system activity does.
- B. Mental illness is similar to physical disease in its effects on body systems.
- C. People with high immune-system activity cannot develop mental illness.
- D. Mental illness does not cause people's immune-system activity to decrease.
- E. Psychological treatment of mental illness is not as effective as is medical treatment
8. Extinction is a process that can depend on a variety of ecological, geographical, and physiological variables. These variables affect different species of organisms in different ways, and should, therefore, yield a random pattern of extinctions. However, the fossil record shows that extinction occurs in a surprisingly definite pattern, with many species vanishing at the same time. Which of the following, if true, forms the best basis for at least a partial explanation of the patterned extinctions revealed by the fossil record?
- A. Major episodes of extinction can result from widespread environmental disturbances that affect numerous different species.
- B. Certain extinction episodes selectively affect organisms with particular sets of characteristics unique to their species.
- C. Some species become extinct because of accumulated gradual changes in their local environments.
- D. In geologically recent times, for which there is no fossil record, human intervention has changed the pattern of extinctions.
- E. Species that are widely dispersed are the least likely to become extinct.
9. In parts of South America, vitamin-A deficiency is a serious health problem, especially among children. In one region, agriculturists are attempting to improve nutrition by encouraging farmers to plant a new variety of sweet potato called SPK004 that is rich in beta-carotene, which the body converts into vitamin A. The plan has good chances of success, since sweet potato is a staple of the region's diet and agriculture, and the varieties currently grown contain little beta-carotene. Which of the following, if true, most strongly supports the prediction that the plan will succeed?
- A. The growing conditions required by the varieties of sweet potato currently cultivated in the region are conditions in which SPK004 can flourish.
- B. The flesh of SPK004 differs from that of the currently cultivated sweet potatoes in colour and texture, so traditional foods would look somewhat different when prepared from SPK004.
- C. There are no other varieties of sweet potato that are significantly richer in beta-carotene than SPK004 is.
- D. The varieties of sweet potato currently cultivated in the region contain some important nutrients that are lacking in SPK004.
- E. There are other vegetables currently grown in the region that contain more beta-carotene than the currently cultivated varieties of sweet potato do.
10. Which of the following best completes the passage below? At a recent conference on environmental threats to the North Sea, most participating countries favoured uniform controls on the quality of effluents, whether or not specific environmental damage could be attributed to a particular source of effluent. What must, of course, be shown, in order to avoid excessively restrictive controls, is that _____.
- A. any uniform controls that are adopted are likely to be implemented without delay



- B. any substance to be made subject to controls can actually cause environmental damage
- C. the countries favouring uniform controls are those generating the largest quantities of effluents
- D. all of any given pollutant that is to be controlled actually reaches the North Sea at present
- E. environmental damage already inflicted on the North Sea is reversible
11. Shelby Industries manufactures and sells the same gauges as Jones Industries. Employee wages account for 40 percent of the cost of manufacturing gauges at both Shelby Industries and Jones Industries. Shelby Industries is seeking a competitive advantage over Jones Industries. Therefore, to promote this end, Shelby Industries should lower employee wages.
- Which of the following, if true, would most weaken the argument above?
- A. Because they make a small number of precision instruments, gauge manufacturers cannot receive volume discounts on raw materials.
- B. Lowering wages would reduce the quality of employee work, and this reduced quality would lead to lowered sales.
- C. Jones Industries has taken away 20 percent of Shelby Industries' business over the last year.
- D. Shelby Industries pays its employees, on average, 10 percent more than does Jones Industries.
- E. Many people who work for manufacturing plants live in areas in which the manufacturing plant they work for is the only industry.
12. Large national budget deficits do not cause large trade deficits. If they did, countries with the largest budget deficits would also have the largest trade deficits. In fact, when deficit figures are adjusted so that different countries are reliably comparable to each other, there is no such correlation.
- If the statements above are all true, which of the following can properly be inferred on the basis of them?
- A. Countries with large national budget deficits tend to restrict foreign trade.
- B. Reliable comparisons of the deficit figures of one country with those of another are impossible.
- C. Reducing a country's national budget deficit will not necessarily result in a lowering of any trade deficit that country may have.

- D. When countries are ordered from largest to smallest in terms of population, the smallest countries generally have the smallest budget and trade deficits.
- E. Countries with the largest trade deficits never have similarly large national budget deficits.
13. Which of the following most logically completes the argument?
- The last members of a now-extinct species of a European wild deer called the giant deer lived in Ireland about 16,000 years ago. Prehistoric cave paintings in France depict this animal as having a large hump on its back. Fossils of this animal, however, do not show any hump. Nevertheless, there is no reason to conclude that the cave paintings are therefore inaccurate in this regard, since _____.
- A. some prehistoric cave paintings in France also depict other animals as having a hump
- B. fossils of the giant deer are much more common in Ireland than in France
- C. animal humps are composed of fatty tissue, which does not fossilize
- D. the cave paintings of the giant deer were painted well before 16,000 years ago
- E. only one currently existing species of deer has any anatomical feature that even remotely resembles a hump
14. The sustained massive use of pesticides in farming has two effects that are especially pernicious. First, it often kills off the pests' natural enemies in the area. Second, it often unintentionally gives rise to insecticide-resistant pests, since those insects that survive a particular insecticide will be the ones most resistant to it, and they are the ones left to breed.
- From the passage above, it can be properly inferred that the effectiveness of the sustained massive use of pesticides can be extended by doing which of the following, assuming that each is a realistic possibility?
- A. Using only chemically stable insecticides
- B. Periodically switching the type of insecticide used
- C. Gradually increasing the quantities of pesticides used
- D. Leaving a few fields fallow every year
- E. Breeding higher-yielding varieties of crop plants
15. In an attempt to promote the widespread use of paper rather than plastic, and thus reduce nonbiodegradable waste, the council of a small-town plans to ban the sale of



disposable plastic goods for which substitutes made of paper exist. The council argues that since most paper is entirely biodegradable, paper goods are environmentally preferable.

Which of the following, if true, indicates that the plan to ban the sale of disposable plastic goods is ill suited to the town council's environmental goals?

- A. Although biodegradable plastic goods are now available, members of the town council believe biodegradable paper goods to be safer for the environment.
 - B. The paper factory at which most of the townspeople are employed plans to increase production of biodegradable paper goods.
 - C. After other towns enacted similar bans on the sale of plastic goods, the environmental benefits were not discernible for several years.
 - D. Since most townspeople prefer plastic goods to paper goods in many instances, they are likely to purchase them in neighbouring towns where plastic goods are available for sale.
 - E. Products other than those derived from wood pulp are often used in the manufacture of paper goods that are entirely biodegradable.
16. Since the deregulation of airlines, delays at the nation's increasingly busy airports have increased by 25 percent. To combat this problem, more of the take-off and landing slots at the busiest airports must be allocated to commercial airlines.
- Which of the following, if true, casts the most doubt on the effectiveness of the solution proposed above?
- A. The major causes of delays at the nation's busiest airports are bad weather and overtaxed air traffic control equipment.
 - B. Since airline deregulation began, the number of airplanes in operation has increased by 25 percent.
 - C. Over 60 percent of the take-off and landing slots at the nation's busiest airports are reserved for commercial airlines.
 - D. After a small Midwestern airport doubled its allocation of take-off and landing slots, the number of delays that were reported decreased by 50 percent.
 - E. Since deregulation the average length of delay at the nation's busiest airports has doubled.

17. A major health insurance company in Lagolia pays for special procedures prescribed by physicians only if the procedure is first approved as "medically necessary" by a company-appointed review panel. The rule is intended to save the company the money it might otherwise spend on medically unnecessary procedures. The company has recently announced that in order to reduce its costs, it will abandon this rule.

Which of the following, if true, provides the strongest justification for the company's decision?

- A. Patients often register dissatisfaction with physicians who prescribe nothing for their ailments.
 - B. Physicians often prescribe special procedures that are helpful but not altogether necessary for the health of the patient.
 - C. The review process is expensive and practically always results in approval of the prescribed procedure.
 - D. The company's review process does not interfere with the prerogative of physicians, in cases where more than one effective procedure is available, to select the one they personally prefer.
 - E. The number of members of the company-appointed review panel who review a given procedure depends on the cost of the procedure.
18. Unlike the wholesale price of raw wool, the wholesale price of raw cotton has fallen considerably in the last year. Thus, although the retail price of cotton clothing at retail clothing stores has not yet fallen, it will inevitably fall.
- Which of the following, if true, most seriously weakens the argument above?
- A. The cost of processing raw cotton for cloth has increased during the last year.
 - B. The wholesale price of raw wool is typically higher than that of the same volume of raw cotton.
 - C. The operating costs of the average retail clothing store have remained constant during the last year.
 - D. Changes in retail prices always lag behind changes in wholesale prices.
 - E. The cost of harvesting raw cotton has increased in the last year.
19. A computer equipped with signature-recognition software, which restricts access to a computer to those people whose signatures are on file, identifies a person's signature by analysing not only the form of the signature



but also such characteristics as pen pressure and signing speed. Even the most adept forgers cannot duplicate all of the characteristics the program analyses.

Which of the following can be logically concluded from the passage above?

- A. The time it takes to record and analyse a signature makes the software impractical for everyday use.
 - B. Computers equipped with the software will soon be installed in most banks.
 - C. Nobody can gain access to a computer equipped with the software solely by virtue of skill at forging signatures.
 - D. Signature-recognition software has taken many years to develop and perfect.
 - E. In many cases even authorized users are denied legitimate access to computers equipped with the software.
20. Start-up companies financed by venture capitalists have a much lower failure rate than companies financed by other means. Source of financing, therefore, must be a more important causative factor in the success of a start-up company than are such factors as the personal characteristics of the entrepreneur, the quality of strategic planning, or the management structure of the company. Which of the following, if true, most seriously weakens the argument above?
- A. Venture capitalists tend to be more responsive than other sources of financing to changes in a start-up company's financial needs.
 - B. The strategic planning of a start-up company is a less important factor in the long-term success of the company than are the personal characteristics of the entrepreneur.
 - C. More than half of all new companies fail within five years.
 - D. The management structures of start-up companies are generally less formal than the management structures of ongoing businesses.
 - E. Venture capitalists base their decisions to fund start-up companies on such factors as the characteristics of the entrepreneur and quality of strategic planning of the company.
21. Aphasia, an impairment of the capacity to use language, often occurs when a stroke damages the left half of the brain. Many people with stroke-related aphasia recover at

least some capacity to use language within a year. One proposed explanation for such recoveries is that the right side of the brain, which is not usually the major language centre, develops its latent language capabilities to compensate for the damage to the left side.

Which of the following, if true, most strongly supports the explanation?

- A. In a study of local brain activity in people performing a language task, people with stroke-related aphasia showed higher activity levels in the right half of the brain than people who did not have aphasia.
 - B. A blow to the head injuring the left half of the brain can result in impairment of the capacity to use language indistinguishable from that produced by a stroke.
 - C. Among people with stroke-related aphasia, recovering lost capacity to use language does not lead to any impairment of those capacities normally controlled by the right half of the brain.
 - D. A stroke that damages the left half of the brain often causes physical impairments of the right side of the body that lessen over time.
 - E. Studies of numerous people with aphasia have indicated that the functions that govern language production and those that govern language comprehension are located in separate areas of the brain.
22. In the arid land along the Colorado River, use of the river's water supply is strictly controlled: farms along the river each have a limited allocation that they are allowed to use for irrigation. But the trees that grow in narrow strips along the river's banks also use its water. Clearly, therefore, if farmers were to remove those trees, more water would be available for crop irrigation. Which of the following, if true, most seriously weakens the argument?
- A. The trees along the river's banks shelter it from the sun and wind, thereby greatly reducing the amount of water lost through evaporation.
 - B. Owners of farms along the river will probably not undertake the expense of cutting down trees along the banks unless they are granted a greater allocation of water in return.



- C. Many of the tree species currently found along the river's banks are specifically adapted to growing in places where tree roots remain constantly wet.
- D. The strip of land where trees grow along the river's banks would not be suitable for growing crops if the trees were removed.
- E. The distribution of water allocations for irrigation is intended to prevent farms farther upstream from using water needed by farms farther downstream.
23. Near Chicago a newly built hydroponic spinach "factory," a completely controlled environment for growing spinach, produces on 1 acre of floor space what it takes 100 acres of fields to produce. Expenses, especially for electricity, are high, however, and the spinach produced costs about four times as much as washed California field spinach, the spinach commonly sold throughout the United States. Which of the following, if true, best supports a projection that the spinach- growing facility near Chicago will be profitable?
- A. Once the operators of the facility are experienced, they will be able to cut operating expenses by about 25 percent.
- B. There is virtually no scope for any further reduction in the cost per pound for California field spinach.
- C. Unlike washed field spinach, the hydroponically grown spinach is untainted by any pesticides or herbicides and thus will sell at exceptionally high prices to such customers as health food restaurants.
- D. Since spinach is a crop that ships relatively well, the market for the hydroponically grown spinach is no more limited to the Chicago area than the market for California field spinach is to California.
- E. A second hydroponic facility is being built in Canada, taking advantage of inexpensive electricity and high vegetable prices.
24. Automobile Dealer's Advertisement:
 The Highway Traffic Safety Institute reports that the PZ 1000 has the fewest injuries per accident of any car in its class. This shows that the PZ 1000 is one of the safest cars available today."
 Which of the following, if true, most seriously weakens the argument in the advertisement?
- A. The Highway Traffic Safety Institute report listed many cars in other classes that had more injuries per accident than did the PZ 1000.
- B. In recent years many more PZ 1000s have been sold than have any other kind of car in its class.
- C. Cars in the class to which the PZ 1000 belongs are more likely to be involved in accidents than are other types of cars.
- D. The difference between the number of injuries per accident for the PZ 1000 and that for other cars in its class is quite pronounced.
- E. The Highway Traffic Safety Institute issues reports only once a year.
25. Which of the following most logically completes the reasoning?
 Either food scarcity or excessive hunting can threaten a population of animals. If the group faces food scarcity, individuals in the group will reach reproductive maturity later than otherwise. If the group faces excessive hunting, individuals that reach reproductive maturity earlier will come to predominate. Therefore, it should be possible to determine whether prehistoric mastodons became extinct because of food scarcity or human hunting, since there are fossilized mastodon remains from both before and after mastodon populations declined, and _____.
- A. there are more fossilized mastodon remains from the period before mastodon populations began to decline than from after that period
- B. the average age at which mastodons from a given period reached reproductive maturity can be established from their fossilized remains
- C. It can be accurately estimated from fossilized remains when mastodons became extinct
- D. it is not known when humans first began hunting mastodons
- E. climate changes may have gradually reduced the food available to mastodons
26. Editorial: The mayor plans to deactivate the city's fire alarm boxes, because most calls received from them are false alarms. The mayor claims that the alarm boxes are no longer necessary, since most people now have access to either public or private telephones. But the city's commercial district, where there is the greatest risk of fire, has few residents and few public telephones, so some alarm boxes are still necessary.
 Which of the following, if true, most seriously weakens the editorial's argument?



- A. Maintaining the fire alarm boxes costs the city more than five million dollars annually.
- B. Commercial buildings have automatic fire alarm systems that are linked directly to the fire department.
- C. The fire department gets less information from an alarm box than it does from a telephone call.
- D. The city's fire department is located much closer to the residential areas than to the commercial district.
- E. On average, almost 25 percent of the public telephones in the city are out of order.
27. State spokesperson: Many businesspeople who have not been to our state believe that we have an inadequate road system. Those people are mistaken, as is obvious from the fact that in each of the past six years, our state has spent more money per mile on road improvements than any other state.
- Which of the following, if true, most seriously undermines the reasoning in the spokesperson's argument?
- A. In the spokesperson's state, spending on road improvements has been increasing more slowly over the past six years than it has in several other states.
- B. Adequacy of a state's road system is generally less important to a businessperson considering doing business there than is the availability of qualified employees.
- C. Over the past six years, numerous businesses have left the spokesperson's state, but about as many businesses have moved into the state.
- D. In general, the number of miles of road in a state's road system depends on both the area and the population of the state.
- E. Only states with seriously inadequate road systems need to spend large amounts of money on road improvements.
28. Company Alpha buys free-travel coupons from people who are awarded the coupons by Bravo Airlines for flying frequently on Bravo airplanes. The coupons are sold to people who pay less for the coupons than they would pay by purchasing tickets from Bravo. This marketing of coupons results in lost revenue for Bravo.
- To discourage the buying and selling of free-travel coupons, it would be best for Bravo Airlines to restrict the
- A. number of coupons that a person can be awarded in a particular year
- B. use of the coupons to those who were awarded the coupons and members of their immediate families
- C. days that the coupons can be used to Monday through Friday
- D. amount of time that the coupons can be used after they are issued
- E. number of routes on which travellers can use the coupons
29. ProTect Insurance Company has recently been paying out more on car-theft claims than it expected. Cars with special antitheft devices or alarm systems are much less likely to be stolen than are other cars. Consequently ProTect, as part of an effort to reduce its annual payouts, will offer a discount to holders of car-theft policies if their cars have antitheft devices or alarm systems.
- Which of the following, if true, provides the strongest indication that the plan is likely to achieve its goal?
- A. The decrease in the risk of car theft conferred by having a car alarm is greatest when only a few cars have such alarms.
- B. The number of policyholders who have filed a claim in the past year is higher for ProTect than for other insurance companies.
- C. In one or two years, the discount that ProTect is offering will amount to more than the cost of buying certain highly effective antitheft devices.
- D. Currently, ProTect cannot legally raise the premiums it charges for a given amount of insurance against car theft.
- E. The amount ProTect has been paying out on car-theft claims has been greater for some models of car than for others.
30. Toughened hiring standards have not been the primary cause of the present staffing shortage in public schools. The shortage of teachers is primarily caused by the fact that in recent years teachers have not experienced any improvements in working conditions and their salaries have not kept pace with salaries in other professions.
- Which of the following, if true, would most support the claims above?
- A. Many teachers already in the profession would not have been hired under the new hiring standards.
- B. Today more teachers are entering the profession with a higher educational level than in the past.



- C. Some teachers have cited higher standards for hiring as a reason for the current staffing shortage.
- D. Many teachers have cited low pay and lack of professional freedom as reasons for their leaving the profession.
- E. Many prospective teachers have cited the new hiring standards as a reason for not entering the profession.

31. A proposed ordinance requires the installation in new homes of sprinklers automatically triggered by the presence of a fire. However, a home builder argued that because more than 90 percent of residential fires are extinguished by a household member, residential sprinklers would only marginally decrease property damage caused by residential fires.

Which of the following, if true, would most seriously weaken the home builder's argument?

- A. Most individuals have no formal training in how to extinguish fires.
- B. Since new homes are only a tiny percentage of available housing in the city, the new ordinance would be extremely narrow in scope.
- C. The installation of smoke detectors in new residences costs significantly less than the installation of sprinklers.
- D. In the city where the ordinance was proposed, the average time required by the fire department to respond to a fire was less than the national average.
- E. The largest proportion of property damage that results from residential fires is caused by fires that start when no household member is present.

32. A recent spate of launching and operating mishaps with television satellites led to a corresponding surge in claims against companies underwriting satellite insurance. As a result, insurance premiums shot up, making satellites more expensive to launch and operate. This, in turn, had added to the pressure to squeeze more performance out of currently operating satellites.

Which of the following, if true, taken together with the information above, best supports the conclusion that the cost of television satellites will continue to increase?

- A. Since the risk to insurers of satellites is spread over relatively few units, insurance premiums are necessarily very high.

B. When satellites reach orbit and then fail, the causes of failure are generally impossible to pinpoint with confidence.

C. The greater the performance demands placed on satellites, the more frequently those satellites break down.

D. Most satellites are produced in such small numbers that no economies of scale can be realized.

E. Since many satellites are built by unwieldy international consortia, inefficiencies are inevitable.

33. Art restorers who have been studying the factors that cause Renaissance oil paintings to deteriorate physically when subject to climatic changes have found that the oil paint used in these paintings actually adjusts to these changes well. The restorers therefore hypothesize that it is a layer of material called gesso, which is under the paint, that causes the deterioration.

Which of the following, if true, most strongly supports the restorers' hypothesis?

- A. Renaissance oil paintings with a thin layer of gesso are less likely to show deterioration in response to climatic changes than those with a thicker layer.
 - B. Renaissance oil paintings are often painted on wooden panels, which swell when humidity increases and contract when it declines.
 - C. Oil paint expands and contracts readily in response to changes in temperature, but it absorbs little water and so is little affected by changes in humidity.
 - D. An especially hard and non-absorbent type of gesso was the raw material for mouldings on the frames of Renaissance oil paintings.
 - E. Gesso layers applied by Renaissance painters typically consisted of a coarse base layer onto which several increasingly fine-grained layers were applied.
34. If the airspace around centrally located airports were restricted to commercial airliners and only those private planes equipped with radar, most of the private-plane traffic would be forced to use outlying airfields. Such a reduction in the amount of private-plane traffic would reduce the risk of midair collision around the centrally located airports.

The conclusion drawn in the first sentence depends on which of the following assumptions?

- A. Outlying airfields would be as convenient as centrally located airports for most pilots of private planes.



- B. Most outlying airfields are not equipped to handle commercial-airline traffic.
- C. Most private planes that use centrally located airports are not equipped with radar.
- D. Commercial airliners are at greater risk of becoming involved in midair collisions than are private planes.
- E. A reduction in the risk of midair collision would eventually lead to increases in commercial airline traffic.
35. Two decades after the Emerald River Dam was built, none of the eight fish species native to the Emerald River was still reproducing adequately in the river below the dam. Since the dam reduced the annual range of water temperature in the river below the dam from 50 degrees to 6 degrees, scientists have hypothesized that sharply rising water temperatures must be involved in signalling the native species to begin the reproductive cycle. Which of the following statements, if true, would most strengthen the scientists' hypothesis?
- A. The native fish species were still able to reproduce only in side streams of the river below the dam where the annual temperature range remains approximately 50 degrees.
- B. Before the dam was built, the Emerald River annually overflowed its banks, creating backwaters that were critical breeding areas for the native species of fish.
- C. The lowest recorded temperature of the Emerald River before the dam was built was 34 degrees, whereas the lowest recorded temperature of the river after the dam was built has been 43 degrees.
- D. Nonnative species of fish, introduced into the Emerald River after the dam was built, have begun competing with the declining native fish species for food and space.
- E. Five of the fish species native to the Emerald River are not native to any other river in North America.
36. Certain messenger molecules fight damage to the lungs from noxious air by telling the muscle cells encircling the lungs' airways to contract. This partially seals off the lungs. An asthma attack occurs when the messenger molecules are activated unnecessarily, in response to harmless things like pollen or household dust. Which of the following, if true, points to the most serious flaw of a plan to develop a medication that would prevent

asthma attacks by blocking receipt of any messages sent by the messenger molecules referred to above?

- A. Researchers do not yet know how the body produces the messenger molecules that trigger asthma attacks.
- B. Researchers do not yet know what makes one person's messenger molecules more easily activated than another's.
- C. Such a medication would not become available for several years, because of long lead times in both development and manufacture.
- D. Such a medication would be unable to distinguish between messages triggered by pollen and household dust and messages triggered by noxious air.
- E. Such a medication would be a preventative only and would be unable to alleviate an asthma attack once it had started.
37. Which of the following most logically completes the argument?
- Although the pesticide TDX has been widely used by fruit growers since the early 1960s, a regulation in force since 1960 has prohibited sale of fruit on which any TDX residue can be detected. That regulation is about to be replaced by one that allows sale of fruit on which trace amounts of TDX residue are detected. In fact, however, the change will not allow more TDX on fruit than was allowed in the 1960s, because _____.
- A. pre-1970 techniques for detecting TDX residue could detect it only when it was present on fruit in more than the trace amounts allowed by the new regulations
- B. many more people today than in the 1960s habitually purchase and eat fruit without making an effort to clean residues off the fruit
- C. people today do not individually consume any more pieces of fruit, on average, than did the people in the 1960s
- D. at least a small fraction of the fruit sold each year since the early 1960s has had on its greater levels of TDX than the regulation allows
- E. the presence of TDX on fruit in greater than trace amounts has not been shown to cause any harm even to children who eat large amounts of fruit
38. Which of the following best completes the passage below?
- The more worried investors are about losing their money, the more they will demand a high potential return on their



investment; great risks must be offset by the chance of great rewards. This principle is the fundamental one in determining interest rates, and it is illustrated by the fact that _____.

- A. successful investors are distinguished by an ability to make very risky investments without worrying about their money
 - B. lenders receive higher interest rates on unsecured loans than on loans backed by collateral
 - C. in times of high inflation, the interest paid to depositors by banks can actually be below the rate of inflation
 - D. at any one time, a commercial bank will have a single rate of interest that it will expect all of its individual borrowers to pay
 - E. the potential return on investment in a new company is typically lower than the potential return on investment in a well-established company
39. A certain mayor has proposed a fee of five dollars per day on private vehicles entering the city, claiming that the fee will alleviate the city's traffic congestion. The mayor reasons that, since the fee will exceed the cost of round-trip bus fare from many nearby points, many people will switch from using their cars to using the bus. Which of the following statements, if true, provides the best evidence that the mayor's reasoning is flawed?
- A. Projected increases in the price of gasoline will increase the cost of taking a private vehicle into the city.
 - B. The cost of parking fees already makes it considerably more expensive for most people to take a private vehicle into the city than to take a bus.

- C. Most of the people currently riding the bus do not own private vehicles.
 - D. Many commuters opposing the mayor's plan have indicated that they would rather endure traffic congestion than pay a five-dollar-per-day fee.
 - E. During the average workday, private vehicles owned and operated by people living within the city account for 20 percent of the city's traffic congestion.
40. Journalist: Well-known businessman Arnold Bergeron has long been popular in the state, and he has often talked about running for governor, but he has never run. However, we have just learned that Bergeron has fulfilled the financial disclosure requirement for candidacy by submitting a detailed list of his current financial holdings to the election commission. So, it is very likely that Bergeron will be a candidate for governor this year. The answer to which of the following questions would be most useful in evaluating the journalist's argument?
- A. Has anybody else who has fulfilled the financial disclosure requirement for the upcoming election reported greater financial holdings than Bergeron?
 - B. Is submitting a list of holdings the only way to fulfil the election commission's financial disclosure requirements?
 - C. Did the information recently obtained by the journalists come directly from the election commission?
 - D. Have Bergeron's financial holdings increased in value in recent years?
 - E. Had Bergeron also fulfilled the financial disclosure requirements for candidacy before any previous gubernatorial elections?

**ANSWER KEY:****EXERCISE 1**

1) A	6) D	11) B	16) D	21) B	26) A
2) E	7) B	12) D	17) D	22) D	27) B
3) D	8) B	13) A	18) D	23) D	28) D
4) A	9) B	14) D	19) D	24) D	29) E
5) B	10) D	15) B	20) A	25) D	30) A

EXERCISE 2

1) A	6) E	11) C	16) E	21) A	26) E
2) A	7) E	12) C	17) C	22) A	27) A
3) E	8) A	13) A	18) B	23) E	28) B
4) E	9) E	14) B	19) A	24) C	29) B
5) E	10) C	15) C	20) A	25) A	30) A

EXERCISE 3

1) D	6) D	11) E	16) A	21) B	26) C
2) E	7) B	12) D	17) B	22) E	27) D
3) A	8) A	13) A	18) D	23) B	28) E
4) E	9) B	14) B	19) E	24) D	29) D
5) D	10) A	15) D	20) B	25) E	30) D

EXERCISE 4

1) B	6) B	11) B	16) D	21) E	26) D
2) D	7) E	12) E	17) B	22) D	27) B
3) E	8) E	13) D	18) E	23) C	28) E
4) A	9) D	14) E	19) E	24) D	29) A
5) D	10) B	15) B	20) B	25) D	30) B

**EXERCISE 5**

1) B	9) A	17) B	25) E	33) E
2) A	10) C	18) A	26) D	34) B
3) B	11) B	19) E	27) A	35) B
4) E	12) D	20) D	28) E	36) A
5) B	13) E	21) B	29) A	37) D
6) B	14) D	22) D	30) B	38) D
7) E	15) A	23) A	31) B	39) A
8) D	16) B	24) D	32) E	40) B

EXERCISE 6

1) B	9) A	17) C	25) B	33) A
2) B	10) B	18) A	26) B	34) C
3) E	11) B	19) C	27) E	35) A
4) A	12) C	20) E	28) B	36) D
5) C	13) C	21) A	29) C	37) A
6) B	14) B	22) A	30) D	38) B
7) D	15) D	23) C	31) E	39) B
8) A	16) A	24) C	32) C	40) E



INPUT-OUTPUT

What is Input-Output

Input-Output questions consist of the pattern which is either based on numbers or alphabets. The concept of Input-Output is similar to the concept of computer input and output. The questions from this topic involve the input of the pattern of numbers or alphabets and the output comes from following a certain pattern.

Tricks to Solve Input-Output Reasoning

We have discussed some tricks which will be helpful for the candidates to solve the questions of Input-Output.

1. While solving the question of Input-Output, candidates are advised to read the question carefully and analyze the pattern of the question.
2. Carefully check the steps from which output is formed, as this will be helpful in solving the question more easily.
3. Try to use tabular form while solving these questions because the length of the Input is longer and it might make the solution confusing.
4. Avoid solving these types of questions verbally as this may result in answering the questions wrongly.
5. Once the pattern is understood, try to apply the same to the input.

Input-Output Reasoning: Types of Questions

The types of questions that might be asked in the examination from the Input-Output Reasoning topic are:

Rearrangement Based Ordering: In these types of questions, words/ Numbers will be arranged alphabetically (forward or reversed). Candidates will have to arrange the words and numbers simultaneously in each step.

Based on Interchanging the positions and numbers: In these, the specific position of numbers will be changed keeping the remaining one unchanged.

Based on Mathematical Operations: In these types of questions, some basic mathematical operations such as adding, dividing, subtracting, multiplying etc will be applied in each step

Based on Single Shift: In these types of questions in input-output reasoning letters, numbers, rearranging, and alphanumeric series will take place from only one end either from the right end or left end.

Based on Double Shift: In these types of Input-output reasoning letters, numbers series will take place from both end right and left simultaneously.

Based on Box: In these types of input-output reasoning questions numbers and letters are given along with some different box that need to be applied on it in each steps.


TYPES OF QUESTIONS:

Directions (1 – 5): Read the following information carefully and answer the following questions.

A word/number arrangement machine when given an input line of word/numbers rearranges them following a particular rule.

The following is an illustration of input and rearrangements.

Input: caliber 49 cannibal 52 caution 43 cave 39 camphor 62

Step I: 60 caliber 49 cannibal 52 caution 43 cave 39 camphor

Step II: 60 cave caliber 49 cannibal 52 caution 43 39 camphor

Step III: 60 cave 50 caliber 49 cannibal caution 43 39 camphor

Step IV: 60 cave 50 caution caliber 49 cannibal 43 39 camphor

Step V: 60 cave 50 caution 47 caliber cannibal 43 39 camphor

Step VI: 60 cave 50 caution 47 cannibal caliber 43 39 camphor

Step VII: 60 cave 50 caution 47 cannibal 41 caliber 39 camphor

Step VIII: 60 cave 50 caution 47 cannibal 41 camphor caliber 39

Step IX: 60 cave 50 caution 47 cannibal 41 camphor 37 caliber

Step IX is the last step of the rearrangements, Based on the following logic rearrange the given input.

Input: mammals 65 laying 59 eggs 71 are 93 seldom 33

1. How many steps are required to complete the arrangements?

- A. Seven
- B. Six
- C. Eight
- D. Nine
- E. None of these

2. What will be the Step III of the given input?

- A. 91 seldom 69 mammals 63 laying 59 eggs are 33
- B. 91 seldom 69 mammals 65 laying 57 eggs are 33
- C. 91 seldom 69 mammals 65 laying 59 eggs are 33
- D. 91 seldom 71 mammals 65 laying 59 eggs are 33
- E. None of these

3. What is the position of '63' from right end in Step VII?

- A. Second
- B. Third
- C. Fourth
- D. Fifth
- E. There is no such step

4. '91 seldom 69 mammals 63 laying 57 eggs are 33' represents which step of the given input?

- A. Step IV
- B. Step V
- C. Step VI
- D. Step VII
- E. None of these

5. What is the sum of the term which is 5th from the left end in step I and the term which is second last from the right end in step VI?

- A. 94
- B. 92
- C. 90
- D. 88
- E. None of these

Solution

Decoding the logic:

The logic followed here is: In first step the highest number is arranged from the left side after subtracting 2 with it. And in the second step the word is arranged in the reverse alphabetical order after the number arranged in the first step. This process is repeated till the last step.

Input: mammals 65 laying 59 eggs 71 are 93 seldom 33

Step I: 91 mammals 65 laying 59 eggs 71 are seldom 33

Step II: 91 seldom mammals 65 laying 59 eggs 71 are 33

Step III: 91 seldom 69 mammals 65 laying 59 eggs are 33

Step IV: 91 seldom 69 mammals 63 laying 59 eggs are 33

Step V: 91 seldom 69 mammals 63 laying 57 eggs are 33

Step VI: 91 seldom 69 mammals 63 laying 57 eggs 31 are

Q1. Ans. B.

Q2. Ans. C.

Q3. Ans. E.

Q4. Ans. B.

Q5. Ans. C.

Directions (6 – 10): A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of an input and rearrangement.

Input: 54 Sea 88 doctor 41 remind 63 aunt united 15 92 Even

Step I: 17 54 Sea 88 doctor 41 remind 63 united 92 Even aunt

Step II: doctor 17 54 Sea 88 remind 63 united 92 Even aunt 43

Step III: 52 doctor 17 Sea 88 remind 63 united 92 aunt 43 Even

Step IV: remind 52 doctor 17 Sea 88 united 92 aunt 43 Even 65

Step V: 86 remind 52 doctor 17 united 92 aunt 43 Even 65 Sea

Step VI: united 86 remind 52 doctor 17 aunt 43 Even 65 Sea 90

And Step VI is the last step of the rearrangement of the above input.

As per the rules followed in the above steps, find out in each of the following questions the appropriate step for the given input.

Input: 48 Stream 82 Damage 35 read 57 apple unit 9 86 end

6. In which step the elements '11 unit 86' found in the same order?



A. Step I

B. Step II

C. Step III

D. Step V

E. Step VI

7. In step IV, which of the following word/number would be at 2nd position to the left of 7th from the right end?

A. 11

B. Stream

C. 82

D. unit

E. 86

8. How many steps are required to complete the above arrangement?

A. Three

B. Four

C. Six

D. Seven

E. Five

9. Which of the following would be step III after arrangement?

A. 16 Damage 11 Stream 82 read 57 unit 86 apple 37 end

B. 6 Damage 11 Stream 80 read 57 unit 86 apple 37 end

C. 6 Damage 15 Stream 82 read 57 unit 86 apple 37 end

D. 46 Damage 11 Stream 82 read 57 unit 86 apple 37 end

E. None of these

10. In step VI, '80' is related to 'unit' and '11' is related to 'Damage'. In the same way '59' is related to?

A. end

B. unit

C. read

D. Stream

E. None of these

Solution

Students let us understand the Logic behind this Question and let's understand how to solve it. When we see the each step, then we can find that there is both number and words are arranged in each step.

1) For words arrangement- Words are arranged according to alphabetical order given in English dictionary. In first step the words which comes first according to English dictionary arranged first to extreme right. And in second step next word are arranged to extreme left.

And this process is continued in further step.

2) For number arrangement- Number are arranged according to ascending order. In first step lowest number arranged in extreme left. And in second step next number is arranged in extreme right. And this process is continued in further step(Each odd number is added by two(+2) while they are arranged and two is subtracted by each even number(-2) while they are arranged).

Input: 48 Stream 82 Damage 35 read 57 apple unit 9 86 end

Step I: 11 48 Stream 82 Damage 35 read 57 unit 86 end apple

Step II: Damage 11 48 Stream 82 read 57 unit 86 end apple 37

Step III: 46 Damage 11 Stream 82 read 57 unit 86 apple 37 end

Step IV: read 46 Damage 11 Stream 82 unit 86 apple 37 end 59

Step V: 80 read 46 Damage 11 unit 86 apple 37 end 59 Stream

Step VI: unit 80 read 46 Damage 11 apple 37 end 59 Stream 84

Q6. Ans. D.

Q7. Ans. A.

Q8. Ans. C.

Q9. Ans. D.

Q10. Ans. A.

Directions (11 – 15): Study the following information to answer the given questions:

A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement. (All the numbers are two-digit numbers and all are arranged as per some logic based on the value of the number.)

Input: world 65 32 95 bottle forth 46 hollow 28 15 give comment

Step I: 95 65 32 bottle forth 46 hollow 28 15 give comment world

Step II: 15 95 65 32 bottle forth 46 28 give comment world hollow

Step III: 65 15 95 32 bottle forth 46 28 comment world hollow give

Step IV: 28 65 15 95 32 bottle 46 comment world hollow give forth

Step V: 46 28 65 15 95 32 bottle world hollow give forth comment

Step VI: 32 46 28 65 15 95 world hollow give forth comment bottle

Step VI is the last step of the arrangement the above input.

As per the rules followed in the above steps, find out in each of the following questions the appropriate steps for the given input.

Input: fire 89 amend the 28 16 bullet crowd 35 53 here 68

11. Which of the following would be step II?

A. 89 fire amend 28 16 bullet crowd 35 53 here 68 the



- B. 35 53 28 68 16 89 the here fire crowd bullet amend
 C. 16 89 amend fire 28 crowd bullet 35 53 68 the here
 D. 53 28 68 16 89 35 the here fire crowd bullet amend
 E. None of these

12. Which word/number would be at seventh position from the left end in step IV?

- A. bullet B. amend
 C. 35 D. the
 E. 53

13. Which step number would be the following output?

'53 28 68 16 89 amend 35 the here fire crowd bullet'

A. There will be no such step.

- B. III C. II
 D. V E. IV

14. In which step the elements '35 the here' found in the same order?

- A. Step V B. Step IV
 C. Step I D. Step II
 E. Step III

15. Which element is exactly between '89' and 'bullet' in Step IV?

- A. amend B. 28
 C. here D. fire

E. none of these.

Solution

Logic:

The word and number arrangement machine rearrange the input with the logic that

In step I, it shifts the largest number to the left-most place and the last word coming in English alphabetical series to the rightmost place.

In step II, it shifts the smallest number to the leftmost place and the next word (in reverse alphabetical order) to the rightmost.

In step III 2nd largest number is shifted to the leftmost place and so on.

Input: fire 89 amend the 28 16 bullet crowd 35 53 here 68

Step I: 89 fire amend 28 16 bullet crowd 35 53 here 68 the

Step II: 16 89 fire amend 28 bullet crowd 35 53 68 the here

Step III: 68 16 89 amend 28 bullet crowd 35 53 the here fire

Step IV: 28 68 16 89 amend bullet 35 53 the here fire crowd

Step V: 53 28 68 16 89 amend 35 the here fire crowd bullet

Step VI: 35 53 28 68 16 89 the here fire crowd bullet amend

Q11. Ans. E.

Q12. Ans. C.

Q13. Ans. D.

Q14. Ans. A.

Q15. Ans. A.


Exercise – 1
Directions (1 – 5):

Input: fun 38 catch an 53 91 rash 25 by 46

Step I: 91 fun 38 catch 53 rash 25 by 46 an

Step II: 91 53 fun 38 catch rash 25 46 by an

Step III: 91 53 46 fun 38 rash 25 catch by an

Step IV: 91 53 46 38 rash 25 fun catch by an

Step V: 91 53 46 38 25 rash fun catch by an

And Step V is the last step of the arrangement of the above input as the intended rearrangement is obtained. As per the rules followed in the above steps, answer the following questions based upon the

Input: 24 dance 66 reach 93 soft 16 pin height 46

- Which of the following would be the second step after rearrangement?
 - 93 66 46 24 16 soft reach pin height dance
 - 93 66 46 24 reach soft 16 pin height dance
 - 93 66 24 reach soft 16 pin 46 height dance
 - 93 24 66 reach soft 16 pin height 46 dance
 - None of these
- Which of the following would be the final arrangement?
 - 93 66 46 24 16 soft reach pin height dance
 - 93 66 46 16 24 soft reach pin height dance
 - 16 24 46 66 93 soft reach pin height dance
 - 93 66 46 24 16 dance height pin reach soft
 - soft reach pin height dance 93 66 46 24 16
- Which of the following will be step VI of the above input?
 - 93 24 66 reach soft 16 pin height 46 dance
 - 93 66 24 reach soft 16 pin 46 height dance
 - 93 66 46 24 reach soft 16 pin height dance
 - 93 66 46 24 16 soft reach pin height dance
 - There will be no such step as it gets arranged before step VI
- In step III, which of the following would be the third word/number from the left?

A. 66	B. 46
C. Pin	D. 16
E. Reach	
- Which step would be the following output?
93 24 66 reach soft 16 pin height 46 dance

A. I	B. II
C. III	D. IV
E. VI	

Directions (6 – 10):

A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule. The following is an illustration of input and rearrangement.

Input: matter 12 in fridge 35 are 26 with 53 given

Step I: are fridge matter 12 in 35 26 with 53 given

Step II: are fridge given in matter 12 35 26 with 53

Step III: are fridge given in matter with 12 35 26 53

Step IV: are fridge given in matter with 53 35 12 26

Step V: are fridge given in matter with 53 35 26 12

And Step V is the last step of the arrangement of the above input as the intended arrangement is obtained. As per the rules followed in the above steps, find out in each of the following questions the appropriate steps for the given input.

Input: when 16 given fish 37 provide zebra 90 night 45 is 25 transfer 84

- Which of the following should be the Step I?
 - Fish given when 16 37 provide zebra 90 night 45 is 25 transfer 84
 - Fish when 16 given 37 provide zebra 90 night 45 is 25 transfer 84
 - Zebra when 16 given fish 37 provide 90 night 45 is 25 transfer 84
 - Fish given when 90 84 16 37 provide zebra night 45 is 25 transfer
 - None of These
- Which word/number would be on 4th position (from left) in Step II?

A. given	B. is
C. when	D. 16
E. None of these	
- How many steps would be needed to complete the arrangement?

A. V	B. VI
C. VII	D. VIII
E. None of these	
- In Step IV, which of the following word/number would be on 8th position (from left)?

A. zebra	B. when
C. 16	D. provide
E. None of these	
- Which step number would be the following output?



Fish given is night provide transfer when 16 37 zebra
90 45 25 84

- A. IV B. III
C. II D. V
E. None of these

Directions (11 – 15):

Study the following information to answer the given questions:

A word arrangement machine when given an input line of words rearranges them following a particular rule. The following is an illustration of input and rearrangement.

Input: star coal bond sun army bullet draw march

Step I: bond star coal sun army bullet draw march

Step II: bond march star coal sun army bullet draw

Step III: bond march coal star sun army bullet draw

Step IV: bond march coal sun star army bullet draw

Step V: bond march coal sun star bullet army draw

Step VI: bond march coal sun star bullet draw army

Step VI is the last step of the rearrangement. As per the rules followed in the above steps, find out in each of following questions the appropriate steps for the given input.

Input: test popular dead stage drawing demon kick staff

11. How many steps would be needed to complete the arrangement?
A. VII B. VI
C. V D. VIII
E. None of these
12. Which Step number would be the following output?
dead stage staff test popular drawing demon kick
A. Step II B. Step V
C. Step III D. Step IV
E. None of these
13. Which of the following will be the penultimate step?
A. Step VII B. Step VI
C. Step IV D. Step V
E. None of these
14. What will be the position of 'kick' in the last but one step?
A. Fifth from right end
B. Fourth from left end
C. Third from right end
D. Fifth from left end
E. Sixth from the left end
15. Which element is third from the right of 'stage' in Step VI?
A. demon B. kick

- C. popular D. test
E. None of these

Directions (16 – 20):

A word and number arrangement machine when given an input line of words and numbers rearranges them following a rule in each step. The following is an illustration of input and rearrangement.

Input: tiger 18 confusion 47 wait 34 caste 56 bucket 87

Step I: wait tiger 18 confusion 34 caste 56 bucket 87 47

Step II: wait caste tiger 18 confusion 34 bucket 87 47 56

Step III: wait caste tiger bucket 18 confusion 87 47 56 34

Step IV: wait caste tiger bucket confusion 87 47 56 34 18

Step IV is the last step of the rearrangement. As per the rules followed in the above steps, find out in each of following questions the appropriate steps for the given input.

Input: cat 48 star 39 match 57 be 24 tremble 61

16. What will be the resultant if third and fifth elements from the right end of step II are added?
A. 85 B. 107
C. 77 D. 63
E. None of these
17. What will be the third step of the given input?
A. cat be star match 24 tremble 61 57 39 48
B. be cat star match 24 tremble 61 57 39 48
C. be cat star match 24 tremble 61 57 48 39
D. be cat star 24 match tremble 61 57 39 48
E. None of these
18. Which of the following word/number will be at fifth position from the left end in last but one step?
A. tremble B. 39
C. 24 D. match
E. None of these
19. How many steps are required to rearrange the given input?
A. VI B. V
C. III D. IV
E. None of these
20. Which element is sixth from the left in Step IV?
A. 57 B. 39
C. match D. 61
E. None of these


Directions (21 – 25):

A word and number arrangement machine when given an input line of words and numbers rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement.

Input: sad 49 forest 14 state 37 business 61 wait 21

Step I: business sad 49 forest state 37 61 wait 21 14

Step II: business forest sad 49 state 37 61 wait 14 21

Step III: business forest state sad 49 61 wait 14 21 37

Step IV: business forest state wait sad 61 14 21 37 49

Step V: business forest state wait sad 14 21 37 49 61

Step V is the last step of the rearrangement.

As per the rules followed in the above steps, find out in each of following questions the appropriate steps for the given input.

Input: witch 53 thousand 14 post 29 sip heaven 33

21. Which among the following is 3rd to the right of the element which is 2nd from left end in step II?
 A. witch B. 53
 C. post D. sip
 E. None of these
22. How many steps are required for getting final step?
 A. Three B. Four
 C. Five D. Six
 E. None of these
23. How many elements are there between “witch” and “sip” in step I?
 A. One B. Two
 C. Three D. More than three
 E. None
24. In which of the following step “witch post 53” is found in same manner?
 A. Step II B. Step I
 C. Step IV D. Step III
 E. None of these
25. Which among the following is step III?
 A. thousand heaven witch post 33 53 sip 14 29
 B. thousand witch heaven post 53 sip 14 29 33
 C. thousand heaven witch post 53 sip 14 29 33
 D. thousand heaven witch post 53 33 sip 14 29
 E. None of these

Directions (26 – 30):

A word and number arrangement machine, when given an input line of words and numbers, rearranges them following a particular rule in each step. The following is an illustration of input and rearrangement.

Input: radical 76 reason 36 readiness 37 rise 51 rainbow 73

Step 1: 76 reason readiness 37 rise 51 rainbow 73 radical 362

Step 2: 76 reason readiness rise 51 73 radical 362 rainbow 337

Step 3: 76 reason rise 73 radical 362 rainbow 337 readiness 351

Step 4: 76 rise radical 362 rainbow 337 readiness 351 reason 373

Step 5: radical 362 rainbow 337 readiness 351 reason 373 rise 762

Step 5 is the final output.

Find the different steps of output using the above mentioned logic for the following input.

Input: persistent 57 pacify 22 panacea 87 pious 69 petition 13.

26. In which of the following steps, 'petition' is placed at fourth from the left end?
 A. Step 1 B. Input
 C. Step 4 D. Either A or B
 E. None of these
27. Which of the following is the final output?
 A. pacify 313 panacea 222 petition 357 persistent 369 pious 387
 B. pacify 313 panacea 222 persistent 357 petition 369 pious 387
 C. pious 387 pacify 313 panacea 222 persistent 357 petition 369
 D. panacea 222 persistent 357 petition 369 pious 387 pacify 313
 E. None of these
28. What is the difference between the highest and the lowest numbers of step 3?
 A. 288 B. 216
 C. 293 D. 313
 E. None of these
29. Which of the following elements is second to the left of fourth element from the right end in step 2?
 A. 87 B. pious
 C. 69 D. petition
 E. None of these
30. In which of the following steps “87 pious pacify” is seen in the same sequence?
 A. Step 4
 B. Step 5
 C. Step 3
 D. Both Step 3 and Step 4
 E. None of these


Directions (31 – 35):

Study the following information carefully and answer the questions given beside.

Input: 925 visual 651 lemon 486 dance 333 jug 563 task

Step 1: 333 925 visual 651 lemon 486 jug 563 task dance

Step 2: 651 333 925 visual lemon 486 563 task dance jug

Step 3: 563 651 333 925 visual 486 task dance jug lemon

Step 4: 925 563 651 333 visual 486 dance jug lemon task

Step 5: 486 925 563 651 333 dance jug lemon task visual
 Step 5 is the final step

As per the pattern followed in the above steps, find out for given input:

Input: 753 cdef 651 droe 454 ghij 222 mnop 613 rstu

31. In which step we will get the following output?
 651 613 753 222 454 mnop rstu cdef droe ghij.
 A. Step 5
 B. Step 4
 C. Step 3
 D. There is no such step
 E. None of these
32. If in step 3 '651' is related to '222' & '753' is related to 'mnop', then following the same pattern '613' is related to
 A. rstu
 B. 222
 C. 753
 D. cdef
 E. ghij
33. Which of the following statements is correct regarding position of '753' in the 4th step?
 A. Third to left of 651
 B. Second to right of ghij
 C. Second to right of 613
 D. Second to right of 222
 E. Second to left of ghij
34. In step 5 which of following word or number is 3rd to the right of the word/number which is 2nd to the right of '454'?
 A. mnop
 B. ghij
 C. cdef
 D. 753
 E. droe
35. In step 3 which of following word or number is 5th to the left of the word/number which is 2nd to the right of 'mnop'?
 A. 222
 B. ghij
 C. cdef
 D. 753
 E. droe

Directions (36 – 40):

A word and number arrangement machine when arranges an input line of words and numbers rearranges them following a particular logic. An illustration of the same is given below.

Input: manage 46 time 23 work 13 create 78 explore 43

universe 84

Step I: work manage 46 time 23 create 78 explore 43 universe 84 13

Step II: universe work manage 46 time create 78 explore 43 84 13 23

Step III: time universe work manage 46 create 78 explore 84 13 23 43

Step IV: manage time universe work create 78 explore 84 13 23 43 46

Step V: explore manage time universe work create 78 13 23 43 46 84

Step VI: create explore manage time universe work 13 23 43 46 84 78

Step VI is the final output.

On the basis of above illustration find the different steps of rearrangement for the input given below.

Input: require 51decade 22 build 10 trust 32 once 84 shattered 45

36. Which of the following is second to the right of '51' in step I?
 A. shattered
 B. 10
 C. require
 D. 22
 E. None of these
37. What is the difference of the numbers that come between 'trust' and 'once' in step II?
 A. 17
 B. 24
 C. 19
 D. 20
 E. None of these
38. Which of the following pairs represents the elements at extreme ends in step IV?
 A. decade 45
 B. once 51
 C. decade 51
 D. once 45
 E. None of these
39. Which of the following steps is – "once require shattered trust decade build 84 45 10 22 32 51"?
 A. Step IV
 B. Step III
 C. Step II
 D. Step V
 E. None of these
40. What is the sum of 8th element from the left end in step III and 10th element from left end in step VI?



- A. 132 B. 136
C. 133 D. 135
E. None of these

Directions (41 – 45):

Input: potent klemens carpont frucar fuchcal dhausig

Step I: arpon hausi lemen oten ruca uchca

Step II: 16 31 10 20 22 22

Step III: 37 10 1 4 8 8

Step IV: 1 4 8 8 10 37

Step V: 19 49

Step V is the final step

Following the same pattern, solve for the given input.

Input: treimors ghendos wertyos stredins quediton bitcals

41. Find the difference between the numbers obtained in the final step.
A. 24 B. 30
C. 106 D. 76
E. 54
42. How many odd numbers are there in step IV?

- A. 3 B. 4
C. 2 D. 5
E. 6

43. How many times has the letter 'o' been repeated in step I?

- A. 3 B. 1
C. 4 D. 5
E. 6

44. Which of the following words are not in step I?

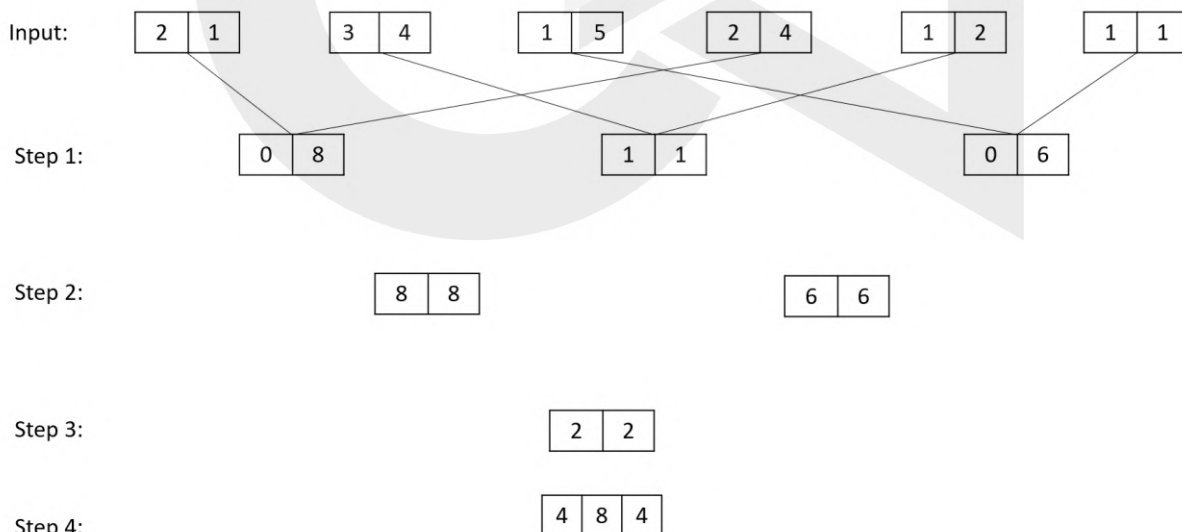
- A. ertyo B. hendo
C. itcal D. temos
E. tredin

45. Find the difference between the highest number in step II and smallest number in step III?

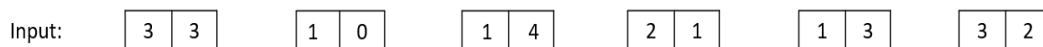
- A. 49 B. 50
C. 46 D. 40
E. 28

Directions (46 – 50):

The first step is the resultant of the product and sum of the digits in input as per the lines indicated. Further steps are obtained by applying certain logic. Numbers of step II have been obtained by using at least 1 digit of each number in step I. Each step is a resultant of previous step.



Using the above illustration solve the following input:





46. Which one of the following is half of the value obtained in final step?

- A. 2 B. 4
C. 3 D. 1
E. 6

47. Which one of the following is a number obtained in step II?

- A. 12 B. 14
C. 13 D. 11
E. 16

48. Find the difference of the numbers obtained in step II?

- A. 2 B. 4

- C. 3 D. 1
E. 6

49. Which one of the following is one of the numbers obtained in step I ?

- A. 20 B. 11
C. 8 D. 10
E. 6

50. Which one of the following is the addition of the squares of the numbers in Step 1?

- A. 213 B. 203
C. 205 D. 215
E. None of these

ANSWER KEY:

1) C	11) A	21) C	31) D	41) D
2) A	12) C	22) B	32) C	42) B
3) E	13) B	23) C	33) C	43) C
4) B	14) D	24) D	34) E	44) D
5) A	15) B	25) C	35) A	45) A
6) A	16) A	26) E	36) D	46) A
7) E	17) B	27) B	37) C	47) D
8) C	18) C	28) A	38) B	48) A
9) A	19) D	29) C	39) A	49) B
10) B	20) D	30) A	40) D	50) B

SYLLOGISMS

INTRODUCTION

Syllogism can be discussed as a kind of reasoning where an assumption is taken from two outlined or assumed offers. It is more of a logical reasoning instead of inductive reasoning. It is identified that most of the crucial sections of the exam includes syllogism in reasoning. You will come across 3 to 5 problems based on syllogism pattern within the reasoning part in most of the competitive examinations.

Solving Syllogism problems can be hard if you don't know the correct way, in Syllogism we have a two Assumption Statements followed by Logical Conclusion and we have to tell which logical conclusion(s) is(are) true based on the Assumption Statements.

The syllogism is kind of a logical argument, where we have to give a genuine reason to arrive at a conclusion, which is based on two or more statements that are mentioned in the question

CONCEPT:

Since Syllogism comprises of some statements, each of which is divided into two parts that are a subject and a predicate.

Subject- a Main matter of discussion.

Predicate- the part which states something about the subject.

There are three types of statements, each of which is mentioned below with the help of an example:

Type 1: All P is Q

It can be portrayed with the help of a Venn diagram:

From this we can definitely conclude that:

All P's are Q's

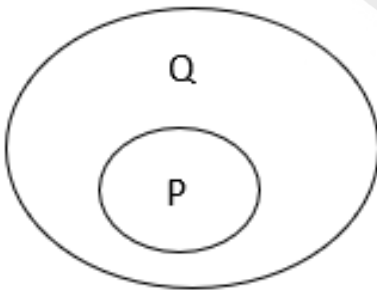
Some P's are Q's

And some Q's are P's

But we cannot be sure that:

All Q's are P's

Some Q's are not P's



Type 2: No P's are Q's

From the diagram we can definitely conclude that:

Some P's are Q's

Some Q's are P's

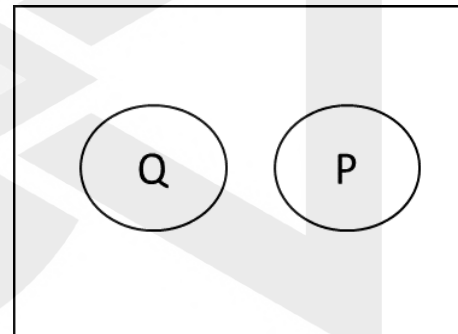
Possible conclusion:

All P's are Q's

All Q's are P's

Some P's are not Q's

Some Q's are not P's



Type 3: Some P's are Q's

From the diagram we can definitely conclude that:

Some P's are Q's

Some Q's are P's

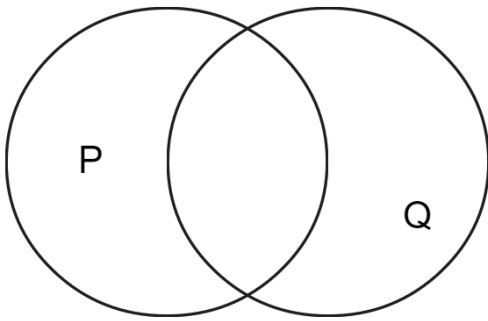
Possible conclusion:

All P's are Q's

All Q's are P's

Some P's are not Q's

Some Q's are not P's.


Syllogism Formulas to Solve Problems:

- Some + All = Some
- Some + Some = No Conclusion
- Some + No = Some Not
- No + No = No Conclusion
- No + All = Some Not Reversed
- No + Some = Some Not (Reversed)
- Some Not/ Some Not Reversed + Anything = No Conclusion
- No + All = Some not Reversed
- All + Some = No Conclusion
- All + All = All
- All + No = No

Note: For understanding the syllogism formulas it is important to understand below 4 points. Before stating further.

Universal Positive Statement:

Universal positive statement indicates something positive applicable to all the items in that category. This is represented by the letter 'A'. These statements begin with All, Every and Even.

Universal Negative Statement:

It implies that it refers to that kind of statements, which are universal and giving a negative impression. These types of statements begin with No, none of the, not a single etc. and are represented by the letter 'E'

Particular Positive Statement:

These types of statements begin with some, any, a few and are represented by the letter 'I'.

Particular Negative Statement:

These kinds of statements are represented by the letter 'O'.

Some examples of this are:

Some girls are not crazy

Some files are not pencils

Some M is not N

Some Rohits are not Dhawans.

Few vegetables are not green.

Since there is no specific formula for solving such type of questions, but it is suggested to take the help of Venn Diagrams.

All we have to do is, read the given statements and accordingly draw the Diagram step by step, on the basis of the given statements, and eventually derive a logical solution by these diagrams.

There are two different methods to solve syllogisms which are–

1) Verbal Method & 2) Venn Diagram Method
1) Verbal Method –

It's a very simple one, try to make logical deductions in your mind from Assumptions (Premises) and match which conclusion is true.

Example –
Premises

All tigers are cats.

All cats are animals.

From these, we can easily conclude that since all tigers are necessarily cats and all Cats are necessarily animals. So, all tigers are animals.

Conclusion– All Tigers are Animals.

2) Venn Diagram Method

The Venn diagram method allows the test taker to solve the questions diagrammatically. This method is very useful in solving syllogism questions. This is illustrated well with the help of some bullet points mentioned below:

Firstly we have to draw the diagram based on the given statements.

Then we have to check which conclusion follow the given information, with the help of the diagram.

If the Conclusion is fulfilling one condition but is not accomplishing the other conditions represented in the diagram, then it will not be considered as a conclusion.

Hence the final conclusion should be made only if it follows all the possible conditions.

**For example:**

Statement I: All P's are Q's

Statement II: All Q's are R's

Statement III: Some R's are S

Conclusion:

All P are R

No Q are R

All S are R

Options:

A. Only Conclusion I follows

B. Only Conclusion II follows

C. Either conclusion I or Conclusion II follows

D. Neither conclusion I nor Conclusion II follows

Answer: A

Explanation:

The last diagram is the final one, and based on this we will draw conclusions.

Conclusion:

All P are R

No Q are R

All S are R

Conclusion 1 is true as Circle representing P is completely inside circle representing R

Conclusion 2 is false as circle representing Q is completely inside circle representing R.

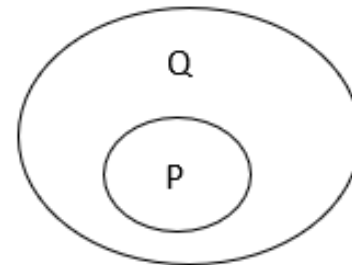
Therefore there is no possibility that no Q are R.

Conclusion 3 is also not true because some part of S is some part of R.

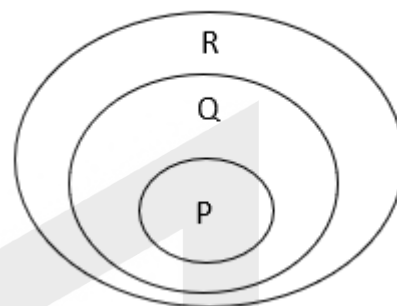
Therefore we can say that only conclusion 1 follows.

Hence option 1 is the correct one.

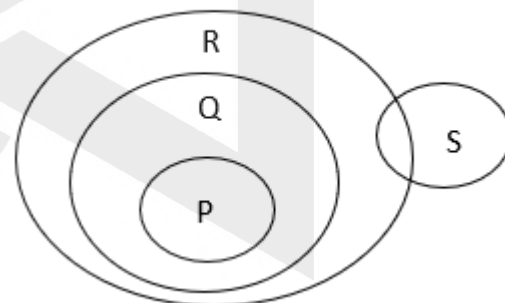
All P are Q



All Q are R



Some R are S



Solved examples:**1) Statements:**

Some dogs are bats.

Some bats are cats.

Conclusions:

I. Some dogs are cats.

II. Some cats are dogs.

A. Only conclusion I follows

B. Only conclusion II follows

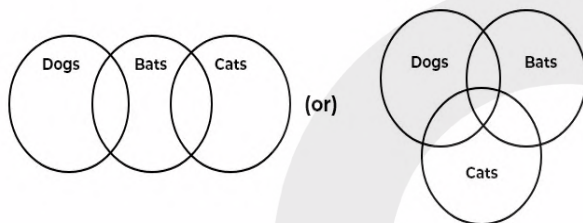
C. Either I or II follows

D. Neither I nor II follows

E. Both I and II follows

Answer: D

Solution

**2) Statements:**

All buildings are chalks.

No chalk is toffee.

Conclusions:

I. No building is toffee

II. All chalks are buildings.

A. Only conclusion I follows

B. Only conclusion II follows

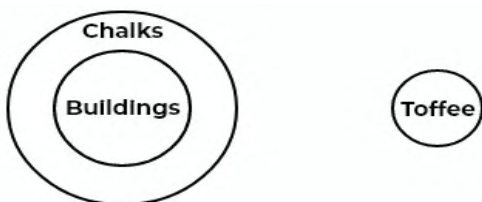
C. Either I or II follows

D. Neither I nor II follows

E. Both I and II follows

Answer: A

Solution

**3) Statements:**

All the harmoniums are instruments.

All the instruments are flutes.

Conclusions:

I. All the flutes are instruments.

II. All the harmoniums are flutes.

A. Only conclusion I follows

B. Only conclusion II follows

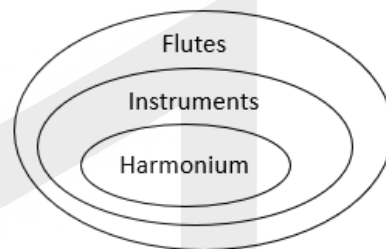
C. Either I or II follows

D. Neither I nor II follows

E. Both I and II follows

Answer: B

Solution

**4) Statements:**

Most CPUs are keyboards.

No keyboard is a Mouse.

All Mouses are CPU.

Conclusion:

I. Some keyboards are CPU

II. All CPU's are Mouse

III. No mouse is a keyboard

IV. Some Mouse are keyboard.

A. Only conclusion I follows

B. Only conclusion III follows

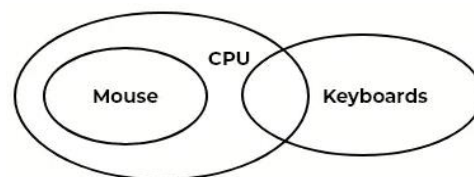
C. Either I or IV follows

D. Neither I nor II follows

E. Both I and III follows

Answer: D

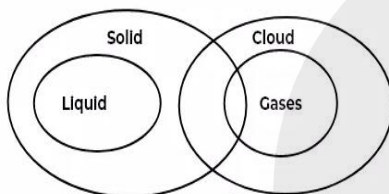
Solution




5) Statements:

All liquids are solids.
 Some solids are gases.
 All gases are clouds
 Conclusion:

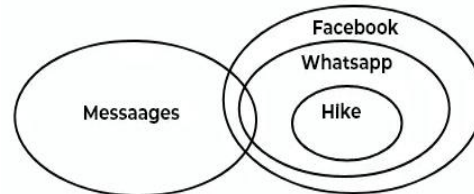
- I. Some clouds are solids
- II. Some clouds are liquids
- III. Some gases are liquids
- IV. Some solids are clouds
- A. Only conclusion I follows
- B. Only conclusion IV follows
- C. Only I and IV follows
- D. Neither I nor IV follows
- E. Only I and III follows

Answer: C
Solution

6) Statements:

Some messages are whatsapp.
 All Hikes are whatsapp.
 All whatsapp are facebook.
 Conclusion:

- I. Some facebook are messages
- II. All hikes are facebook
- III. Some messages are hikes
- IV. Some message are Facebook
- A. Only conclusion I follows
- B. Only I And either III or IV follows
- C. Only I, II and IV follows

- D. Neither I nor IV follows
- E. Only I and III follows

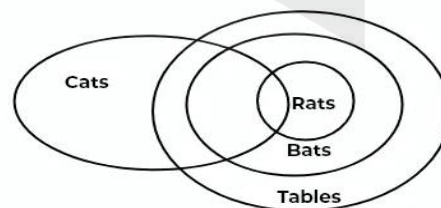
Answer: C
Solution

7) Statements:

Some Cats are Rats.
 All bats are tables.
 All Rats are Bats.
 Conclusion:

- I. Some Cats are bats
- II. All bats are rats
- III. All tables are cats
- IV. All bats are cats
- A. Only conclusion I follows
- B. Only conclusion IV follows
- C. Only I and IV follows
- D. Neither I nor IV follows
- E. Only I and III follows

Answer: A
Solution

Only I follows




Exercise – 1
1. Statements:

- I. Some statements are assumptions.
- II. Some assumptions are conclusions.

Conclusions:

- I. All assumptions are statements.
- II. Some statements are conclusions.
- III. Some conclusions are assumptions.
- IV. No statements is conclusions.
- A. Either III or IV and II follow.
- B. Either II or IV and III follow.
- C. Either II or IV follows.
- D. Only II, III, IV follow.
- E. None of these.

2. Statements:

- I. Some chalks are boards.
- II. All boards are schools.

Conclusions:

- I. All boards are schools.
- II. All schools are boards.
- III. Some schools are chalks.
- IV. Some chalks are schools.
- A. None follows.
- B. All follows.
- C. Only I, III and IV follow.
- D. Only I, II and III follow.
- E. None of these.

3. Statements:

- I. All pens are grey.
- II. Some grey are pencils.

Conclusions:

- I. All pencils are grey.
- II. Some pens are pencils.
- III. All grey are pens.
- IV. Some pencils are grey.
- A. Only II and IV follow.
- B. Only II and III follow.
- C. Either I or IV follows.
- D. None follows.
- E. Only IV follows.

4. Statements:

- I. All books are Ramayana.
- II. Some Ramayana are mythology.

Conclusions:

- I. Some mythology are books.

- II. All mythology are books.

- III. All Ramayana are books.

- IV. All books are mythology.

- A. Only I follows.

- B. Either I or II follows.

- C. None follows.

- D. All follow.

- E. Only II follows.

5. Statements:

- I. All boys are teachers.

- II. All teachers are students.

Conclusions:

- I. All boys are students.

- II. Some students are boys.

- III. Some students are teachers.

- IV. All teachers are boys.

- A. Only I follows.

- B. All follow.

- C. Only I and II follow.

- D. Only I, II and III follow.

- E. Only II and III follow.

6. Statements:

- I. All the Drums are Piano.

- II. All the Guitar are Drums.

Conclusions:

- I. Only (1) conclusion follows.

- II. Only (2) conclusion follows.

- III. Either (1) or (2) follows.

- IV. Neither (1) nor (2) follows.

- V. Both (1) and (2) follow

- A. None follows.

- B. Either I or II follow.

- C. Only IV follows.

- D. Either I & II or IV follows.

- E. All follow.

7. Statements:

- I. Some tables are chairs.

- II. All chairs are windows.

Conclusions:

- I. All windows are tables.

- II. Some windows are chairs.

- III. Some windows are tables.

- IV. All tables are windows.

- A. All follow.



- B. Only I, II and III follow.
 C. None follows.
 D. Only IV follows.
 E. Only II and III follow.
8. **Statements:**
 I. All researchers are psychologists.
 II. Some psychologists are scientists.
Conclusions:
 I. All researchers are scientists.
 II. Some researchers are scientists.
 III. Some scientists are psychologists.
 IV. Some psychologists are researchers.
 A. None follows.
 B. Only III and IV follow.
 C. All follow.
 D. Only III follow.
 E. Only II and IV follow.
9. **Statements:**
 I. Some tests are school.
 II. No school is a college.
Conclusions:
 I. No tests is a college.
 II. No school is a tests.
 III. Some tests are college.
 IV. Some school are tests.
 A. All follow.
 B. None follows.
 C. Only I and III follow.
 D. Only I, II and IV follow.
 E. Only IV and either I or III follows.
10. **Statements:**
 I. No educationists are researchers.
 II. All researchers are teachers
Conclusions:
 I. No teacher is a researcher.
 II. No teacher is an educationist.
 III. Some researchers are teachers.
 IV. Some teachers are researchers.
 A. None follows.
 B. All follows.
 C. Either I or III follows.
 D. Only II follows.
 E. Only III and IV follow.
11. **Statements:**
 I. All cooks are mothers.

II. All mothers are children.

Conclusions:

- I. All children are mothers.
 II. All mothers are cooks.
 III. All cooks are children.
 IV. Some children are cooks.
 A. None follows.
 B. Only I and II follow.
 C. All follow.
 D. Only III and IV follow.
 E. Only II follows.

12. **Statements:**

- I. Some swords are knives.
 II. Some knives are sharp.

Conclusions:

- I. Some knives are swords.
 II. Some swords are sharp.
 III. Some sharp are knives.
 IV. No knife is sharp
 A. Only II and III follow.
 B. Only I and III follow.
 C. Only IV follows.
 D. Only I follows.
 E. None of these.

Directions (13 – 17):

In each of the following questions you are given two statements followed by two conclusions P and Q. You have to take the statements to be true, even if they appear to be at variance from commonly known facts. Choose your answer as:

- A. if only conclusion P follows.
 B. if only conclusion Q follows.
 C. if either P or Q follows.
 D. if neither P nor Q follows.
 E. if both P and Q follow.

13. **Statements:**

- I. All pilots are brave men.
 II. All astronauts are pilots.

Conclusions:

- P. All astronauts are brave men.
 Q. Some pilots are astronauts.

14. **Statements:**

- I. Many books are movies.
 II. All movies are clips.

Conclusions:

- P. Some books are clips.



Q. No movies is a book.

15. **Statements:**

I. Some kites are horses.

II. All horses are dogs.

Conclusions:

P. All dogs are horses.

Q. Some dogs are horses.

16. **Statements:**

I. All poets are readers.

II. No reader is writer.

Conclusions:

P. No poet is writer.

Q. All readers are poets.

17. **Statements:**

I. Some trees are shrubs.

II. Teak is a tree.

Conclusions:

(a) Teak is not a tree.

(b) Some shrubs are trees.

Directions (18 - 22):

Each question contains four arguments of three sentences each. Choose the set in which the third statement is a logical conclusion of the first two.

18. I. Some Xs are Ps. Some Ps are Ys. Some Xs are Ys.
 II. All gold are beautiful. Some beautiful are crazy. Some gold are crazy.
 III. No belief is strong. Only strong have muscles. No belief has muscles.
 IV. All orangutans are men. Some men are strong. Some orangutans are strong.
 A. I and IV
 B. III only
 C. IV only
 D. None of these
 E. Cannot be determined
19. I. Some bikes are mopeds. All mopeds are scooters. Some bikes are scooters.
 II. All children are hairs. No hairs are red. No children are red.
 III. No pencil is pen. Some pens are markers. Some pencils are markers.
 IV. Every man has a wife. All wives are devoted. No devoted has a man.
 A. I, II and III
 B. I and II

C. III and II

D. I, II and III and IV

E. Cannot be determined

20. I. No moon is not red. All stars are moon. All stars are red.
 II. All doors are open. No open is outdoors. All doors are not outdoors.
 III. No Japanese can fight. All Chinese are books. Japanese and Chinese can fight.
 IV. No A is B. No B is C. No A is C.
 A. I only
 B. II only
 C. I & II only
 D. IV only
 E. Cannot be determined
21. I. All envelopes are rectangles. All rectangles are squares. All envelopes are squares.
 II. Some thin are smart. Some smart things are tiny. Some thin are tiny.
 III. Learnt are well read. Well read know. Learnt know.
 IV. All Diet is healthy. Some health is rare. All diet is rare.
 A. IV only
 B. III only
 C. Both I and III
 D. All of these
 E. Cannot be determined
22. I. Shahrukh is an actor. Some actors are pretty. Shahrukh is pretty.
 II. Some executives are soldiers. All soldiers are patriotic. Some executives are patriotic.
 III. All cricketers are patriotic. Some executives are soldiers. Some executives are patriotic.
 IV. All actors are pretty. Shahrukh is not an actor. Shahrukh is not pretty.
 A. IV only
 B. II only
 C. I only
 D. II and III
 E. Cannot be determined

Directions: In the following questions, the symbols *, %, ?, > and < are used with the following meanings as illustrated below. Study the following information and answer the given questions. In each of the questions given below statements are followed by some conclusions. You have to take the given



statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusions logically does not follow from the given statements disregarding commonly known facts.

A*B – All A is B.

A%B – Some A is B.

A<B – No A is B.

A>B – Some A is not B.

? – possibility case

23. Statement

Ocean > waves * tide % sand

Conclusions

a. wave % tide

b. Ocean >? Wave

c. tide %? Wave

d. wave *? Ocean

e. wave *? Sand

A. Conclusion (a) follows

B. Conclusion (a), (d), (e) follows

C. Conclusion (b), (c), (d), (e) follows

D. All Follow

E. Conclusion (a), (c), (e) follows

Directions: 24 – 26 In the following questions, the symbols *, %, ?, > and < are used with the following meanings as illustrated below. Study the following information and answer the given questions. In each of the questions given below statements are followed by some conclusions. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusions logically does not follow from the given statements disregarding commonly known facts.

A*B – All A is B.

A%B – Some A is B.

A<B – No A is B.

A>B – Some A is not B.

? – possibility case

Note: if ? is placed after any of the symbols mentioned above then it will be considered as possibility case of the symbol. E.g. A%?B means some A being B is a possibility.

24. **Statements:**

cold * water% ice > cube

Conclusions:

a. water % cold

b. ice % water

c. cold <? Cube

d. cube > water

e. cube <?water

A. Conclusion (e) follows

B. Conclusion (b) follows

C. Conclusion (a), (c), (d), (e) follows

D. All Follow

E. Conclusion (a), (b), (c), (e) follows

25. **Statements:**

sea>waves*tide % moon

Conclusions:

a. moon % tide

b. tide >? Wave

c. tide % wave

d. wave <? moon

e. sea < wave

A. Conclusion (a) follows

B. Conclusion (d) follows

C. Conclusion (b), (c), (d), (e) follows

D. All Follow

E. Conclusion (a), (b), (c), (d) follows

26. **Statements:**

lashes % eyes < specs* lens

Conclusions:

a. lens > eyes

b. specs < eyes

c. eyes % lashes

d. lashes > specs

e. lashes % specs

A. Conclusion (a) follows

B. Conclusion (d) follows

C. Conclusion (b), (c), (d), (e) follows

D. Conclusion (a), (b), (c), (d) follows

E. All Follow

Directions (27 – 31):

In the following questions, the symbols *, %, ?, > and < are used with the following meanings as illustrated below. Study the following information and answer the given questions. In each of the questions given below statements are followed by some conclusions. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusions logically does not follow from the given statements disregarding commonly known facts.



$A*B$ – All A is B.

$A\%B$ – Some A is B.

$A<B$ – No A is B.

$A>B$ – Some A is not B.

? – possibility case

Note: if ? is placed after any of the symbols mentioned above then it will be considered as possibility case of the symbol. E.g.

$A\%?B$ means some A being B is a possibility.

27. **Statements:**

$M * N \% O > P \% Q$

Conclusions:

a. $O \% ? M$

b. $P > O$

c. $N \% M$

d. $O \% N$

e. $Q \% P$

A. Conclusion (a) follows

B. Conclusion (a), (c), (d), (e) follows

C. Conclusion (a), (b), (c), (d), (e) follow

D. Conclusion (a), (b), (c), (d) follows

E. None Follow

28. **Statements:**

$M < N * P \% Q$

Conclusions:

a. $Q \% P$

b. $P \% N$

c. $P > M$

d. $N < M$

e. $Q \% M$

A. Conclusion (a) follows

B. Conclusion (d) follows

C. Conclusion (b), (c), (d), (e) follows

D. Conclusion (a), (b), (c), (d) follows

E. All Follow

29. **Statements:**

$M < N * P \% Q < S$

Conclusions:

a. $S < Q$

b. $P > M$

c. $Q > M$

d. $M * ? P$

e. $P \% N$

A. Conclusion (a), (b), (d), (e) follows

B. Conclusion (d) follows

C. Conclusion (b), (c), (d), (e) follows

D. Conclusion (a), (b), (c), (d) follows

E. All Follow

30. **Statements:**

$M * N \% O > P \% Q * Z$

Conclusions:

a. $P * O$

b. $N \% M$

c. $Z \% P$

d. $Z \% Q$

e. $O \% N$

A. Conclusion (a), (b), (d), (e) follows

B. Conclusion (d) follows

C. Conclusion (b), (c), (d), (e) follows

D. Conclusion (a), (b), (c), (d) follows

E. All Follow

31. **Statements:**

$S \% T < U * V$

Conclusions:

a. $T > U$

b. $S > U$

c. $T * V$

d. $T \% S$

e. $V \% U$

A. Conclusion (a), (b), (d), (e) follows

B. Conclusion (d) follows

C. Conclusion (b), (d), (e) follows

D. Conclusion (b), (d) follows

E. All Follow

Directions (32 – 36):

In the following questions, the symbols #, @, \$ and © are used with the following meanings as illustrated below. Study the following information and answer the given questions. In each of the questions given below statements are followed by some conclusions. You have to take the given statements to be true even if they seem to be at variance from commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

$P\#Q$ – All P is Q.

$P@Q$ – Some P is Q.

$P©Q$ – No P is Q.

$P\$Q$ – Some P is not Q.

32. **Statements:**

$A \# B © C @ D$

Conclusions:



- a. D @ B
 b. A \$ B
 c. D @ C
 d. D @ B
 e. None of these
 A. Conclusion (a), (c), (e) follows
 B. Conclusion (c) follows
 C. None of these
 D. None Follows
 E. All Follow
33. **Statements:**
 A @ B @ C @ D
Conclusions:
 a. D @ A
 b. B @ D
 c. C @ B
 d. A @ C
 e. None of these
 A. Conclusion (c) follows
 B. Conclusion (b), (c) follows
 C. None of these
 D. None Follows
 E. All Follow
34. **Statements:**
 A # B @ C @ D
Conclusions:
 a. D \$ C
 b. D \$ B
 c. A \$ B
 d. B @ A
 e. None of these
 A. Conclusion (c) follows
 B. Conclusion (b) follows
 C. None of these
 D. None Follows
 E. All Follow
35. **Statements:**
 A @ B @ C @ D
Conclusions:
 a. C @ A
 b. D @ C
 c. C @ B
 d. A @ D
 e. None of these
 A. Conclusion (e) follows

- B. Conclusion (b), (d) follows
 C. None of these
 D. None Follows
 E. All Follow
36. **Statements:**
 A \$ C # B, C @ D
Conclusions:
 a. C @ A
 b. D @ C
 c. B @ A
 d. D @ C
 e. None of these
 A. Conclusion (d) follows
 B. Conclusion (b), (c) follows
 C. None of these
 D. None Follows
 E. All Follow

Directions (37 – 46):

In each question below are given three statements followed by two conclusions

numbered I and II. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

- A. If only (I) conclusion follows
 B. If only (II) conclusion follows
 C. If either conclusion (I) or (II) follows
 D. If neither conclusion (I) nor (II) follows
 E. If both conclusion (I) and (II) follows

37. **Statements:**
 All sweets are sweet
 All sweet are toffees
 No toffees is sour.
Conclusions:
 I. Some toffees are sweets.
 II. No sweets is sour.

38. **Statements:**
 Some Pots are Mats.
 All Mats are Flat.
 No Flat is Rat.
Conclusions:
 I. No Rat is Pot.
 II. Some Rats are Mats.

39. **Statements:**



Some Pens are Slates.

Some Slates are not crayons.

All crayons are Erasers.

Conclusions:

I. Some crayons are not Slates.

II. Some Erasers are Pens.

40. **Statements:**

Some Kids are Lids.

Some Lids are Adults.

Some Adults are Smart.

Conclusions:

I. Some Adults are Lid.

II. Some Smart are not Kids.

41. **Statements:**

All Letters are Alphabets.

Some Alphabets are Words.

No Word is Consonant

Conclusions:

I. All Consonants being Alphabets is a possibility.

II. No Letter is Consonant.

42. **Statements:**

All the Bags are Handles.

All the Handles are Clips.

All the Clips are Black.

Conclusions:

I. All the Clips are Bags.

II. All the Handles are Black.

43. **Statements:**

All the trucks are flyers.

Some scooters are flyers.

No scooter are trucks.

Conclusions:

I. All the trucks are scooters.

II. Some flyers are trucks.

44. **Statements:**

All baskets are Marbles.

Some marbles are sticks.

No stick is garden.

Conclusions:

I. Some Gardens are baskets.

II. No Garden is Basket

45. **Statements:**

All Keys are Locks.

All Locks are electronic.

Some electronic are Pens and some Pens are Digital.

Conclusions:

I. Some Digital are Keys.

II. All Keys are electronic.

46. **Statements:**

Some Landlords are farmers.

All landlords are labours.

Some Labours are Traders.

Conclusions:

I. Some Labours are Farmers.

II. All Traders being Farmers is Possibility.

Directions (47 - 52):

Study the following information and answer the questions below:

A. Only II follows

B. Either I or II and III follows

C. Both I and II follows

D. Both II and III follows

E. None of these follows

47. **Statements:**

Only a few Genes are DNA.

Only DNA are RNA.

No RNA is Protein.

Conclusions:

I. No Gene is Protein.

II. Some proteins are Genes.

III. Some Genes are not DNA.

48. **Statements:**

Some A are B.

Only a few B are C.

No A is D.

Conclusions:

I. At least some A are C.

II. All B are C is a possibility.

III. No D is C.

49. **Statements:**

All Planets are Stars.

Some Stars are Earth.

Only a few Suns are Planets.

Conclusions:

I. All Sun being Star is a possibility.

II. Some Stars are Sun.

III. Some Planets are Earth.

50. **Statements:**

All Mathematics are Logic.

Only a few Mathematics are Algebra.



No Algebra is Geometry.

Conclusions:

- I. All Algebra are Logic.
- II. Some Logic are Algebra.
- III. All Mathematics being Geometry is a possibility.

51. **Statements:**

Some dairy milks are KitKat.
 Only a few KitKat are milky bar.
 All dairy milk are snickers.

Conclusions:

- I. All KitKat can never be milky bar.
- II. Some dairy milks are milky bar.
- III. Some snickers are KitKat.

52. **Statements:**

Only a few radios are TVs.
 Only a few laptops are cables.
 All cables are TVs.

Conclusions:

- I. All laptop can never be TVs.
- II. Some radio being cable is a possibility.
- III. Some radios are laptops.

Directions (53 – 54):

Study the following information and answer the questions below:

- A. Either I or III follows
- B. Only II follows
- C. Both I and II follows
- D. Both II and III follows
- E. All I, II and III follows

53. **Statements:**

Only a few A is B.
 Only a few C is B.
 Some C are not D.

Conclusions:

- I. Some A is C.
- II. All C are B is a possibility.
- III. No C is A.

54. **Statements:**

Only few Tiger are Lion.
 Only Lion are Cheetah.
 Some Lion are Elephant.

Conclusions:

- I. Some Elephant are Tiger.
- II. Some Tiger can be Cheetah.
- III. No Tiger is Elephant.

Directions (55 – 56):

Study the following information and answer the questions below:

- A. Either I or III follows
- B. Only III follows
- C. Both I and III follows
- D. Both II and III follows
- E. All I, II and III follows

55. **Statements:**

All Twitter are Facebook.
 Only a few Facebook are Orkut.
 Only Orkut are WhatsApp.

Conclusions:

- I. All Orkut is Twitter is a possibility.
- II. No Facebook is WhatsApp.
- III. Some Facebook are not Orkut.

56. **Statements:**

Some Google are Opera.
 Only Opera are Twitter.
 Only a few Opera are Yahoo.

Conclusions:

- I. Some Yahoo are not Opera.
- II. No Google is Twitter.
- III. All Opera are Twitter is a possibility.

Directions (57 – 58):

Study the following information and answer the questions below:

- A. Either I or III follows
- B. Only II follows
- C. Both I and II follows
- D. Both II and III follows
- E. All I, II and III follows

57. **Statements:**

Only Mouse is a Desktop.
 Only a few Mouse is CPU.
 No CPU is a Camera.

Conclusions:

- I. No Desktop is Camera.
- II. Some Desktop is not a CPU.
- III. All Mouse can be a Camera.

58. **Statements:**

No Chennai is a Bangalore.
 Only Bangalore are Hyderabad.
 Only a few Bangalore are Delhi.

Conclusions:



- I. No Delhi is Hyderabad.
 II. Some Delhi can be Chennai.
 III. Some Delhi can never be a Chennai.

Directions (59 – 60):

Study the following information and answer the questions below: Which of the conclusion definitely does not follow (also not a possibility of occurrence).

- A. Neither I nor III follows
 B. Only I does not follow.
 C. Both I and II do not follow.
 D. Both II and III do not follow.
 E. All follow.

59. Statements:

Some leaves are roots.
 Only a few roots are branches.
 Some leaves are not trees.

Conclusions:

- A. Some trees are branches.
 B. Some leaves are roots.
 C. Some roots are not branches.

60. Statements:

Some kings are queen.
 Only a few emperors are king.
 No queen is princess.

Conclusions:

- A. Some queen are emperor is a possibility.
 B. Some princess are king is a possibility.
 C. All emperor being queen is a possibility.

61. Conclusions:

Some bad are grills. Some fat can be bad.

Statements:

No grills is bad. Some bad are belt. No grills is fat.
 Some grills are bad. Some bad are belt. No Fat is bad.
 Some fat are grills, some grills are belt, all belt are bad.
 Some grills are bads. All bads are belt. No Fat is bad.
 No grills is bad. All bads are belt. No grills is fat.

- A. Only Statements – A
 B. Only Statements – B
 C. Only Statements – C
 D. Only Statements – D
 E. Only Statements – E

62. Conclusions:

All juju can be both evil and bad.

All good can be juju.
 Some evil are not bad.

Statements:

- (a) Some juju are racists. Some racists are bad. No good is racist. No racist is evil
 (b) All bads are racists. Some racists are juju. No good is racist. Some bad are evil.
 (c) All juju are racists. Some racists are bad. Some goods are bad. Some juju are evils
 (d) Some juju are racist, some racist are evil, all good are evil, no good is bad.
 (e) All juju are racists. All racists are bad. Some goods are bad. Some racists are evils.

- A. Only Statements – A
 B. Only Statements – B
 C. Only Statements – C
 D. Only Statements – D
 E. Only Statements – E

63. Conclusions:

No animal is rep. Some correct can be rep.

Statements:

- (a) All birds are good; Some rep are good. No animal is correct
 (b) All birds are good. All animals are good. All good are correct. No good is rep.
 (c) Some birds are good; Some rep are good. No animal is correct
 (d) Some birds are good; Some correct are good. No animal is correct
 (e) Some birds are good; Some rep are good. All animals are birds

- A. Only Statements – a
 B. Only Statements – b
 C. Only Statements – c
 D. Only Statements – d
 E. Only Statements – e

64. Conclusions:

Some tight are not cane. All wood can be teak.

Statements:

- (a) Some cane are kill. Some kill are tight. Some tight are teak.
 (b) Some cane are tight. Some tight are kill. Some kill are teak.
 (c) All cane are kill. Some kill are tight. No crazy is teak.



(d) All cane are kill. All kill are tight. No tight is teak.
 (e) No cane is teak, some teak are kill, all kill are tight, some tight are wood.

- A. Only Statements – A
- B. Only Statements – B
- C. Only Statements – C
- D. Only Statements – D
- E. Only Statements – E

65. **Conclusions:**

- I. All pastries being chips is a possibility
- II. Some cake is definitely not chips.

Statements:

- A. No pastries is biscuit. Some biscuit are cake. Some biscuits are chips.
- B. Some cake is biscuit. No biscuits are chips. Some pastries are cake.
- C. All cake is biscuit. Some pastries are cake. Some biscuits are chips.
- D. All cake is biscuit. No pastries are cake. Some biscuits are chips.
- E. Some cake is biscuit. No pastries are cake. All biscuits are chips.

66. **Conclusions:**

- I. some reds are neither blues nor whites is a possibility
- II. All greens are reds is a possibility

Statements:

- A. Some reds are blues. No greens are red. No blues are white.
- B. No blues are greens. All reds are blues. All greens are whites.
- C. Some blues are greens. No reds are blues. All greens are whites.
- D. Some blues are greens. Some reds are blues. All greens are whites.
- E. All blues are greens. Some white are blues. No greens are red.

67. **Conclusions:**

- I. Some roof being wall is a possibility.
- II. No wall is floor

Statements:

- A. All floor are roof. No floor is wall. All windows are wall.
- B. Some windows are wall. No floor are roof. Some window is roof .

C. All floor are roof. Some window is roof. No windows are wall.

D. No floor are roof. No window is roof. Some windows are wall.

E. Some floor are roof. No window is roof. No windows are wall

68. **Conclusions:**

- I. Some biscuit which are pastries is also a part of chips.
- II. All chips if they are pastries then they must be a part of cake.

Statements:

- A. Some cake is biscuit. No pastries are cake. All biscuits are chips.
- B. No cake is biscuit. All pastries are cake. Some biscuits are chips.
- C. All cake is biscuit. No pastries are cake. No biscuits are chips.
- D. No cake is biscuit. No pastries are cake. Some biscuits are chips.
- E. All cake is biscuit. Some pastries are cake. All pastries are chips.

69. **Conclusions:**

- I. Some whites are not reds
- II. Some reds which are white are blue.

Statements:

- A. No blues are greens. All reds are blues. Some greens are whites.
- B. All blues are greens. Some reds are blues. No greens are whites.
- C. All blues are greens. No reds are blues. All greens are whites.
- D. Some whites are red. No green is red. All green are white. All white are blue.
- E. No blues are greens. No reds are blues. No greens are whites

Directions 70 – 72:

In each group of questions below are two conclusions followed by five set of statements. You have to choose the correct set of statements that logically satisfies given conclusions. Assume the given statements to be true even if they seem to be at variance from commonly known facts.

70. **Conclusions:**

- I. Some M which are S are also a part of B.
- II. All R is B is a possibility.

**Statements:**

- A. All B are S. Some S are R. No R are M.
- B. All B are S. Some B are R. All R are M.
- C. Some B are S. Some S are R. Some R are M.
- D. Some B are S. Some S are R. No R are M.
- E. All B are S. No S are R. No Rare M.

71. **Conclusions:**

- I. All numbers are alphanumeric is a possibility.
- II. Some alphanumeric is not numbers.

Statements:

- A. No numbers are scores. Some boundaries are alphanumeric. No boundary is score.
- B. No numbers are scores. Some boundaries are alphanumeric. All boundary is score.
- C. Some numbers are scores. No boundaries are alphanumeric. No boundary is score.
- D. All numbers are scores. All boundaries are alphanumeric. No boundary is score.
- E. All numbers are scores. No boundaries are alphanumeric. All boundary is score.

72. **Conclusions:**

- I. Some tabs are phones
- II. All electronics are phones is a possibility

Statements:

- A. No tabs are mobiles. Some mobiles are phones. All tabs are electronics.
- B. Some tabs are mobiles. No mobiles are phones. All tabs are electronics.
- C. Some tabs are mobiles. All mobiles are phones. All tabs are electronics.
- D. No tabs are mobiles. All mobiles are phones. No tabs are electronics.
- E. Some tabs are mobiles. Some mobiles are phones. Some tabs are electronics.

Directions 73 – 75:

Each question consists of some conclusions followed by five statements. Consider the given conclusion to be true even if they seem to be at variance with commonly known facts. Read the conclusions and then decide which of the following statement is true for that conclusion.

73. **Conclusions:**

All python being snakes is a possibility. No snakes is a language.

Statements:

A. Some snakes are languages. No Java is a python. All python are language.

B. Some python are not Java. All snakes are Java. No Java is a language.

C. All Java are python. Some snakes are not Java. No language is a snakes.

D. Some Java are language. All snakes are Java. No language is python.

E. None of these

74. **Conclusions:** All facts being letter is a possibility. Some premise can be facts.**Statements:**

A. Some letters are passage. All passage are premise. All facts are letter.

B. None of these

C. Some letters are passage. Some premise are passage. No letter is a facts.

D. Some premise are passage. Some letters are passage. Some letters are not facts.

E. All premise are letters. Some passage are premise. No facts is a premise.

75. **Conclusions:** All nose can be ear. Some mouth are ear.**Statements:**

A. None of these

B. All eyes are mouth. Some ear are mouth. No ear is a nose.

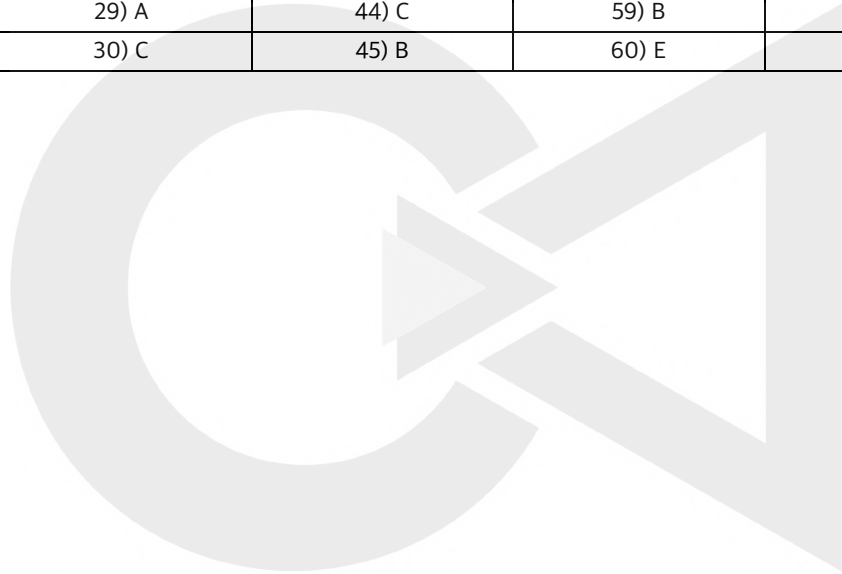
C. Some ear are eyes. All eyes are nose. Some nose are mouth.

D. Some ear are eyes. All eyes are mouth. All mouth are nose.

E. Some eyes are mouth. All mouth are ear. No ear is a nose.

**ANSWER KEY:**

1) E	16) A	31) C	46) E	61) C
2) C	17) B	32) B	47) B	62) D
3) E	18) B	33) A	48) E	63) B
4) C	19) B	34) B	49) C	64) E
5) D	20) C	35) C	50) A	65) B
6) B	21) C	36) A	51) E	66) D
7) E	22) B	37) E	52) A	67) A
8) B	23) B	38) D	53) A	68) E
9) E	24) E	39) D	54) B	69) D
10) E	25) E	40) A	55) C	70) B
11) D	26) D	41) A	56) B	71) D
12) B	27) B	42) B	57) B	72) C
13) E	28) D	43) B	58) D	73) E
14) A	29) A	44) C	59) B	74) D
15) B	30) C	45) B	60) E	75) D





DIRECTION SENSE

Introduction

Verbal reasoning section covers a very basic yet important topic that is directions. Directions are one of the easiest sections to score included in a number of competitive examination.

The concept here is to identify the direction of any random object given in the questions tangled in the form of a situation. It is the same things we use in our day to day life. The direction test can be explained as nothing but a sense of identifying directions precisely by imagining and the object and logically placing them as they are real.

In order to solve the direction test, you are initially required to make a sketch of the given data or situation in your mind. Placing the objects in your imagination in the right direction will help you get the right answer.

Definition:

We generally know Directions North, South, East and West. We all are also aware about the 4 cardinal directions – North, East, South East, South West, and North West. For Directional Sense to solve logical reasoning problems, understanding of all these Eight directions are very important.

Important Facts about Directional Sense

Let us assume the front direction as North, back side as, South, Left side as Westside and right side as Eastside.

We also know that, in Eastside, the sun rises and in Westside it sets. If we look to the sun, then our front is in the Eastside and our backside is in the Westside.

Correspondingly, our left will be in Northside and our right is in Southside.

For solving these problems the foremost thing we need to remember is that every change in the direction of main side changes a 90 degree change.

For instance if a person moves from North side to Westside/Eastside there will be change in 90°. However the

change among South and South east side or North and North-east will be 45° only.

For solving these types of problems, we presumed all these distances among the specified points and along with straight lines.

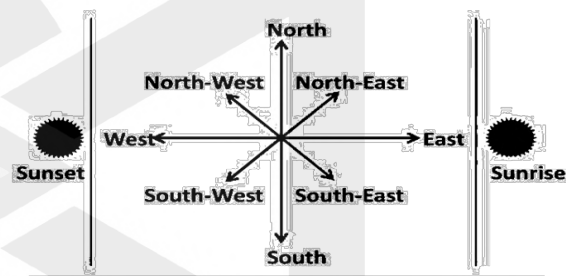
Pythagoras theorem concept is used to solve the problems like this.

Tips and Tricks for Directional Senses.

Directions problems questioned in the exam are based on 2 principles-

- Distance
- Direction

There are mainly four directions – East, West, North & South and 4 types of cardinal directions such as North East, North West, South East, and South West as represented below



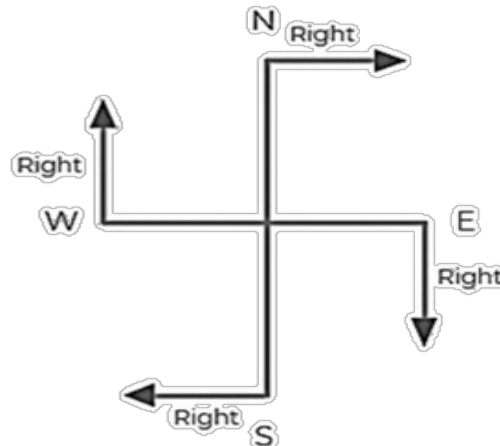
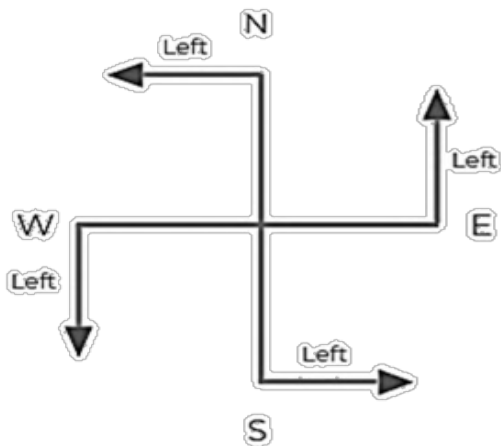
Left and Right side Movements:

If a person is looking at northside, on making a move towards left will face to west direction and on making a move towards right will face to eastside.

If a person is looking at west direction, on making a move towards left will face to southside and on making a move towards right will face to north.

If a person is looking to east, on making a move towards left will face to north and on making a move towards right will face to south.

If a person is looking to south, on making a move towards left will face east and on making a move towards right will face to west.



Hence, the above facts can be sum up as:

Every time an individual moves to her/his left side, he/she will move in the direction of anti- clockwise.

Every time an individual moves to her/his right side, he/she will move in the direction of clockwise.

Message: if a question says to move towards left side or right side, we solve the problem by assuming the movement at an angle of 90 degrees.

Rules:

Let us check out some rules to solve these questions:

It is important to keep in mind the actual position of the object before the question directs you to change its position; it will help to keep track of the older position and avoid confusion.

Create a diagram for the given direction to bring your imagination to the real world.

The direction test comes with two main factors, involving distance and directions. The distance here plays a key role in confusing the students. Try to avoid that by creating roadmap. However, do not put much efforts into making diagrams as the questions here are not so complicated and would not require much efforts.

If there is more than one person involved in the questions, then name them alphabetically on the roadmap for easier understanding.

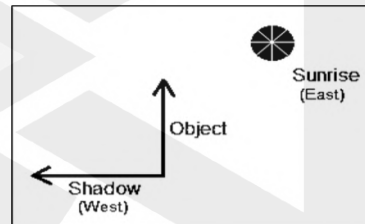
Assumption of every direction must be proper as if you fail to locate the object in the wrong direction, then the result will

eventually be wrong. This type of confusion about left and right or up and down often happens at the time of reflection or shadow based questions.

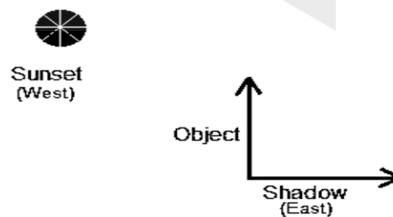
Direction and Distance: Concept of Shadow

The shadow of a person or any object always appears in the opposite direction from the light source.

Shadow during the time of Sunrise: During the sunrise, the shadow of an object will always be towards the west.



Shadow during the time of Sunset: During the sunset, the shadow of an object will always be towards the east.



Note: During 12 PM at noon, there will be no shadow because at that time the rays of the sun are vertically downward.

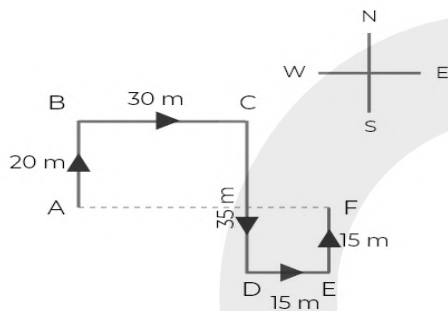

Types of questions:
Type 1: Total distance covered or minimum distance among two places;
Question 1.

Nagendra walked 20 m towards north. Then he turned right and walks 30 m. Then he turns right and walks 35 m. Then he turns left and walks 15 m. Finally he turns left and walks 15 m. how many metres is he from the starting position and in which direction?

- A. 15 m West B. 30 m East
 C. 30 m West D. 45 m East

Solution

Clearly mentioned in the picture below: $AF = BC + DE = 45$ meters and direction is east.


Answer: D
Questions 2

A dog is looking for his mother. He travelled 90 metres in the Eastside before turning to his right. He went 20 meters before turning to his right again to look for his mother at his master's place 30 metres from this point. But dog's mother was not there. From this point he again ran 100 metres to the Northside before finding his mother in a road. What is the minimum distance among the starting point and his mother's position?

- A. 40 metres B. 80 metres
 C. 100 metres D. 160 metres

Solution

The movement of the dog from A to E is as shown in figure. Clearly, the dog meets his mother at E.

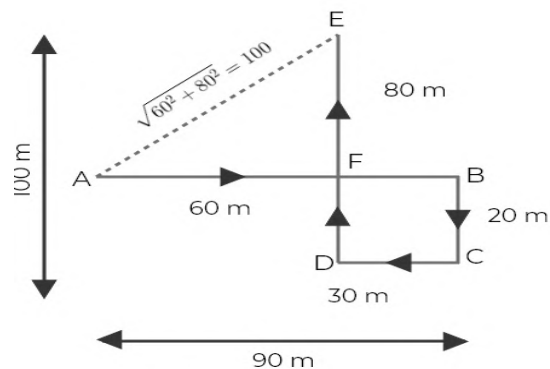
Now, $AF = (AB - FB)$

$= (AB - DC) = (90 - 30)$ metres = 60 metres.

$EF = (DE - DF) = (DE - BC)$

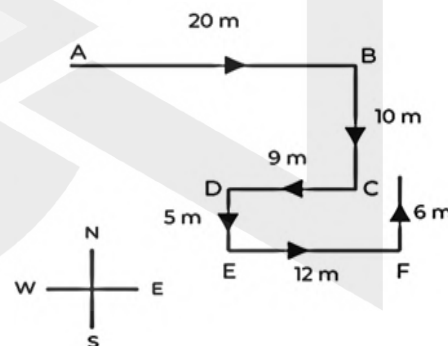
$= (100 - 20)$ metres = 80 metres.

So the total distance is = root of (square of 60 + square of 80), which will be 100 metres.


Answer: C
Type 2: Right Direction/ Position of Shadow
Question 1

A whale swims 20 meter towards East and turns Right, Swims 10 meter and turns to right, Swims 9 meter and again turns to left, swims 5 meter and then turns to left, again dips 12 meter and finally turns to left side and swims 6 meter. Now which in direction whale is facing ?

- A. East B. North
 C. West D. South

Solution


Fish's direction can easily be find out by creating his movement on diagram.

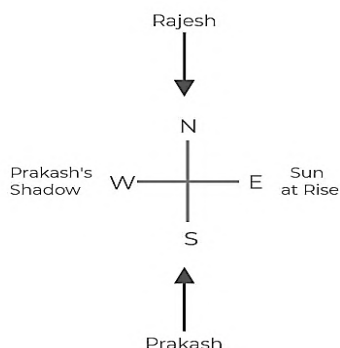
Answer: B
Question 2

One morning Rajesh and Prakash are Talking each other Such that they faces each other. The shadow of the Prakash falls exactly right of Rajesh. To which direction was Prakash facing?

- A. East B. West
 C. North D. Data is inadequate

Solution

From image we see Prakash is facing North



Answer: C

Solved examples:

Directions (1-3):

Study the information carefully and answer the questions given below.

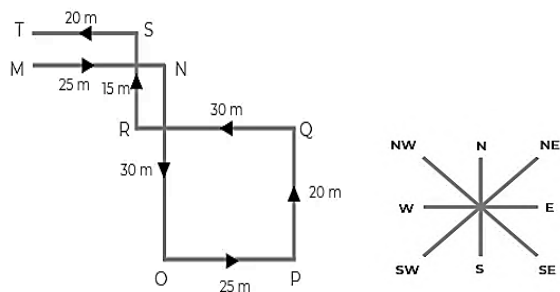
Neeraj starts walking from point M towards east direction to reach N, which is 25m east to M. He then takes a right turn and walks 30 m to reach point O. From O, he takes left turn and walks 25m to point P, then again, he takes a left turn and walks 20m to point Q. From Q, he takes a left turn and walks 30m to reach point R. He then takes a right turn and walks 15m to reach S and finally takes a left turn to reach point T, which is 20 m away from S.

1) In which direction is point N with respect to point R?

- A. North-East
- B. North-West
- C. South-West
- D. South-East
- E. None of these

Solution

From image we can see that N is in north-east of R.



Answer: A

2) Four of the following five belongs to a group based on their directions find the one that does not belong to that group?

- A. M, S
- B. N, P
- C. P, Q
- D. R, O

E. T, R

Solution

Clearly from the diagram, all except P and Q are moving to different directions while P and Q are in same direction. (refer to image given in above question)

Answer: C

3) How far is point M from point T?

- A. 15m
- B. 20m
- C. 25m
- D. 30m
- E. None of these

Solution

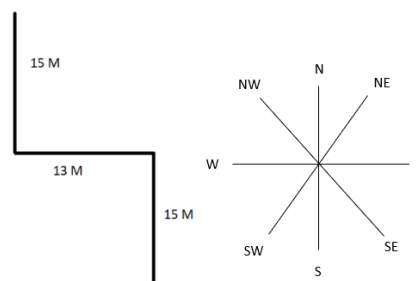
Clearly from the above diagram = $20 + 15 - 30 = 5$ m

Answer: E

4) Ajay started walking straight towards South direction. He walked a distance of 15 m and then took a left turn and walked a distance of 13 m. Then he took a right turn and walked a distance of 15 m again. 'Ajay' is facing which direction now?

- A. North
- B. South
- C. South-West
- D. South-East
- E. None of these

Solution



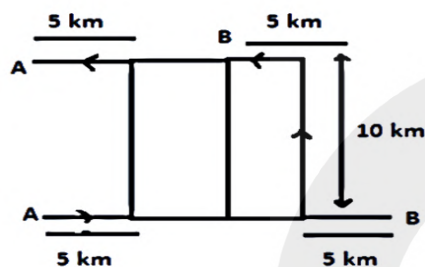


Answer: B

5) Anuj and Bhagwati are standing at a distance of 20 km from each other on a straight East-West road. Anuj and Bhagwati start walking at the same time, eastwards and westwards one-to-one, and both cover a distance of 5 km. Then Anuj turns to his left and walks 10 km. 'Bhagwati' turns to his right and walks 10 km, at the same speed. Again they both turn to their left and cover a distance of 5 km with same speed. What is the total distance between them?

- A. 10m B. 20m
 C. 5m D. 15m
 E. None of these

Solution



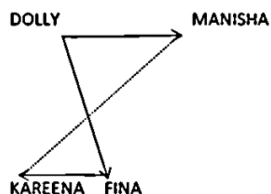
Answer: A

6) Manisha is to the East of Dolly, Fina is to the South - East of Dolly and Kareena is to the West of Fina. Manisha is in which direction with respect to Kareena?

- A. North-East B. North-West
 C. South-West D. South-East
 E. None of these

Solution

Manisha is to the north east of Kareena.



Answer: A

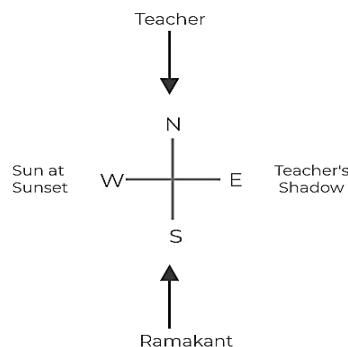
7) In the evening near to 4.30 p.m. when Ramakant was returning from his tuitions, he saw his teacher coming in the opposite direction. His teacher talked to him for some time. Ramakant saw that the shadow of his Teacher was to his right side. Which direction was his teacher facing during their conversation?

- A. North` B. South
 C. South-West D. Data inadequate

E. None of these

Solution

In the evening our shadow comes towards East. Now, East side is to the right of Ramakant. So Ramakant faces north. And his teacher, who is opposite him, faces south.



Answer: B


Exercise - 1

- Amir walks 10 km towards the east, turns right and then walks for another 20 kms. He then takes a right turn and covers a distance of 10 kms. After walking for another 10 kms in the south direction he reaches his office. In which direction is he from the starting point ?
 A. South B. North-east
 C. West D. North
 E. None of these
- P walks 8 kms towards the south. Then, turns to his right and starts walking straight till he completes another 8 kms. Then, again turning to his left he walks for 6 kms. He then turns to his left & walks for 5 kms. In which direction is he from his initial position?
 A. East B. West
 C. North D. South
 E. None of the above
- D started walking from his house in the north direction. He walked for 5 kms and then turned to his left. Walking for 13 kms he took a right turn and reached the grocery shop. In which direction is he from his initial position?
 A. North-east B. South
 C. East D. North-west
 E. None of the above
- Megh travelled for 80 kms in the north direction. Then he turned left and travelled for 100 kms. Again, he turned left & travelled yet another 80 kms. Again, he turned left and travelled 120 kms. How far is he from the initial position?
 A. 35 kms B. 22 kms
 C. 20 kms D. 30 kms
 E. None of the above
- I drove 50 kms in the east. He then took a left turn and drove for another 30 kms. After driving for another 30 kms in the north he reached his office. In which direction is he from the starting point ?
 A. North B. West
 C. North-east D. South-east
 E. None of the above
- Harsh walks 60m to the east, then he turns left and walks for 50 m, then turns right and goes 70 m and then turns right again and goes 50 m. How far was Sandeep from the starting point?
 A. 120 m B. 110 m
 C. 130 m D. 100 m
 E. None of the above
- On Tuesday morning X starts walking facing the sun. He then takes a right turn and walks for 30 m. He then takes a left turn and then walks for 50 m. How far and in which direction is he from his starting point?
 A. 150 m, east
 B. 100 m, south
 C. 140 m, west
 D. Cannot be determined
 E. None of these
- B starts walking 4 kms in the east, takes a right turn and then continues walking for 10 kms. He now takes a right turn and then walks for another 4 kms. In which direction is he from his starting point ?
 A. North B. South
 C. East D. West
 E. None of the above
- A and B start walking in the north. B takes a right turn and walks for 10 kms. He then turns right and walks for another 5 kms. A takes a left turn and walks for 10 kms. He then turns to his right and walks for another 15 kms. In which direction is A now with respect to B?
 A. North B. South
 C. North-west D. South-west
 E. None of the above
- On Sunday morning, P was standing facing Q. The shadow of Q was forming on P's left side. Which direction was P facing?
 A. North B. South
 C. East D. West
 E. None of the above
- B is to the south of C and to the east of A. P is to the north of A. In which direction is P with respect to C if C and P are horizontally on the same X axis?
 A. North B. East
 C. West D. South
 E. None of the above



12. Ajay walks 10 kms in the east and meets Parag. They walk 20 kms in the south direction and then Ajay takes a right turn and walks for another 10 kms. In which direction and how far is Ajay from his initial position?
- A. 20 kms , North B. 20 kms, South
 C. 10 kms, North D. 10 kms, South
 E. None of the above
13. T is to the east of U. U is to the north of S. S is to the west of Q. Q is to the north- west of P. In which direction is P with respect to U?
- A. North-east B. North-west
 C. South-east D. South-west
 E. None of the above
14. X drives 26 kms from his house in the east direction. He then takes a right turn and drives for another 14 kms. After taking left he drives for another 30 kms. He then takes a left turn and drives for 14 kms. How far is he from his house?
- A. 46 kms B. 56 kms
 C. 66 kms D. 84 kms
 E. None of the above

Directions for question number 15 to 17 are given below.
Answer the following questions based on the following directions.

Village B is to the east of village H. Village L is to the north of village B. Village L, H and P are in a straight line. Village P is to the south west of village B. Village S is to the south of village H.

15. In which direction is village P with respect to village B?
- A. North-west B. South-west
 C. North-east D. South-east
 E. None of the above
16. In which direction is village L with respect to village S?
- A. North B. West
 C. North-west D. East
 E. None of these
17. In which direction is village S from village P?
- A. East B. West
 C. North D. South
 E. None of the above
18. Aman takes his dog Leo on a walk. They walk 10 kms towards the east from their home. Then they walk 5

kms to the north followed by 10 kms to the west. They finally walk 5 kms to the north and rest in a park. What is the horizontal distance travelled by them?

- A. 15 kms B. 10 kms
 C. 20 kms D. 5 kms
 E. None of the above
19. S is to the south of W. W is to the west of B. B is to the north of C. C is to the north east of P. In which direction is P with respect to S ?
- A. North B. South
 C. East D. West
 E. None of the above

Study the following information carefully and answer the questions 20 - 23 based on the information.

A is 11 kms to the south of M. B is 5 kms to the north of C. D is 35 kms to the west of A. F is 10 kms to the east of C. C is 5 kms to the east of A. Z is 6 kms to the north of B.

20. In which direction is Z with respect to F ?
- A. North B. North-west
 C. South D. South-east
 E. None of the above
21. What is the distance between D and C ?
- A. 35 B. 20
 C. 45 D. 40
 E. None of the above
22. In which direction is C with respect to M ?
- A. North-east B. East
 C. South D. South-east
 E. South-west
23. What is the distance between M and Z ?
- A. 11kms B. 10 kms
 C. 5 kms D. 6 kms
 E. None of the above
24. Jiya starts walking towards the east. She walks for 10 kms and then catches a bus. After travelling for another 30 kms in the east she gets down and walks for 20 kms in the south. In which direction is she from the starting point?
- A. South B. North
 C. South-east D. North-west
 E. None of the above
25. A person walks towards west then moves to the right, then moves to the west again. Now the person takes a left turn and finally walks in the south. Assume that



- the person travels equal distance at every step. What direction will the person be facing now?
- A. North B. South
C. East D. West
E. None of the above
26. Q is to the west of R. R is to the south of B. B is to the northwest of C. What is the direction of C with respect to R?
- A. North B. South
C. East D. West
E. Cannot be determined
27. Harshali started running towards the east. She ran for a distance of 5 kms and then turned to her left and then ran for 3 kms. She again turned to her right and walked for 10 kms. In which direction is she with respect to her starting point?
- A. East B. North-east
C. West D. South-west
E. None of the above
28. Amit started driving from his home towards the north. After covering a distance of 50 kms he then turned left and drove for another 30 kms. He now drove in the west direction for another 12 kms. He finally takes a right turn to reach his office. In which direction is his house with respect to the office?
- A. South B. South - east
C. North - west D. West
E. None of the above
29. A man walks 20 kms towards the north. He then takes a left turn and walks for 20 kms. He again turns to his right and covers a distance of 20 kms. He then walks towards the south and covers a distance of 40 kms. How far and in which direction is he from his house?
- A. 40 kms, north B. 40 kms, south
C. 20 kms, east D. 20 kms, west
E. None of the above
30. From his house, Ram went 15 km towards the North. Then he turned west and covered 10 km. Then he turned south and covered 5 km. Finally turning to the east, he covered 10 km. How far and in which direction is he from his house?
- A. 10 km, North B. 5 km, North
C. 10 km, South D. 5 km, South
E. None of the above
31. Four friends A, B, C and D live in the same village. The house of B is to the east of A's house but to the north of C's house. The house of C is in the west of D's house. D's house is in which direction of A's house?
- A. North - west B. South - east
C. East D. West
E. None of these
32. One morning Sujata started to walk towards the Sun. After covering some distance, she turned to the right, then again to the right, and after covering some distance she again turned to the right. Now in which direction is she facing?
- A. South B. East
C. North D. West
E. None of the above
33. Starting from point X, P walked 15m towards West. He turned left and walked 20 m. He then turned left and walked 15 m. After this he turned to his right and walked 12 m. How far and in which direction is P from X now?
- A. 25m, East B. 35m, South
C. 33m, North D. 32m, South
E. None of the above
34. Building W is to the south of X. Building Y is to the north of P. Building P is to the east of X. Building Z is to the east of P. What is the direction of W w.r.t Z?
- A. North - east B. North - west
C. South - east D. South - west
E. None of the above
35. I am facing the South. I turn right and walk 20 m. Then I turn right again and walk 10m. Then I turn left and walk 10m and then turn right and walk 20 m. Then I turn right again and walk 60 m. In which direction am I from the starting point?
- A. North B. East
C. North - east D. South - west
E. None of the above
36. B is to the North-East of A, C is to West of B and North-West of A and D is to the south of C in line with BA. In which direction of A is D located?
- A. South-west B. South-east
C. North - west D. North - east
E. None of the above

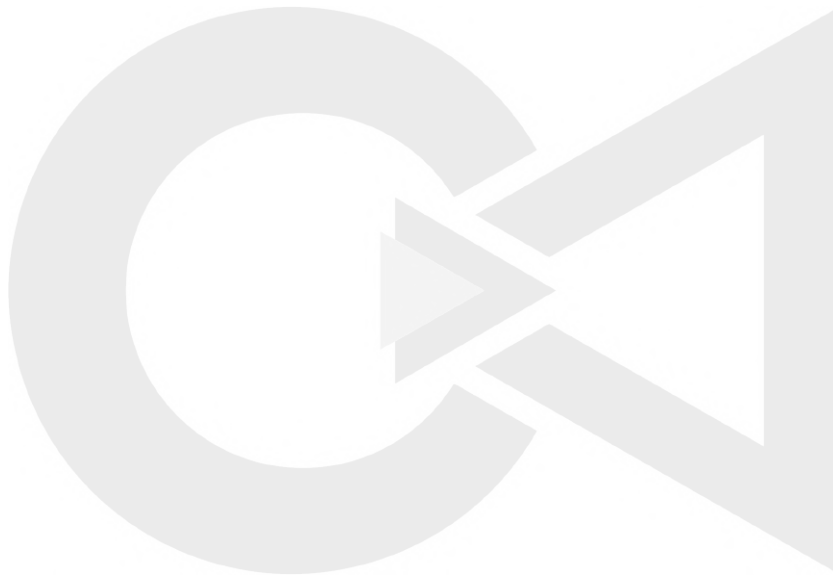


37. Neha facing south walks 2 km to her left and then turns right and walks for 5 kms. She then runs into Saina and they walk for another 30 kms towards the south. Now they take a right turn and finally reach their school. In which direction is their school from Saina's house?
- A. South B. North
 C. South-west D. North-east
 E. South-east
38. L is to the left of O who is to the right of R who faces south. A, B and C are in a straight line and to the south of O. Z is to the left of C and between A and B. What is the direction of Z w.r.t R?
- A. North – east B. South – west
 C. East D. North
 E. Cannot be determined
39. Yash starts walking towards the north. He then takes a left turn and walks for a few minutes. He again turns to his left and walks some more. Which direction is he facing?
- A. North B. South
 C. East D. West
 E. None of the above
40. Varsha walks 12 km towards west and then 8 kms towards the north. She walks 7 kms to the northeast and then walks 40 kms to the east. Which direction is she facing?
- A. North B. South
 C. East D. West
 E. None of the above
41. One day, Piyush left home and cycled 10 km southwards, turned right and cycled 5 km again, turned right and cycled 10 km then turned left and cycled 10 kms. How many kilometres will he have to cycle to reach his home straight?
- A. 20 B. 35
 C. 15 D. 10
 E. None of the above
42. A man is facing south. He turns 90 in a clockwise direction and walks for 10 m. Now he turns to his right and walks for 3m. Finally, he walks 9m in the east. In which direction is he from his starting point?
- A. North B. South
 C. East D. West
 E. None of the above
43. The post office is to the east of the school while my house is to the South of the school. The market is to the North of the post office. The distance of the market from the post office is equal to the distance of my house from the school. In which direction is the market with respect to the school?
- A. North B. West
 C. South-west D. North-east
 E. None of the above
44. Village W is 20 km to the North of village X. Village Y is 18 km to the East of village X. Village Z is 12 km to the West of W. If Sonu starts from village Y and goes to village Z, in which direction is he from his starting point?
- A. South-west B. North-west
 C. South-east D. North-east
 E. None of the above
45. Samantha walks 14 metres towards West, turns to her right and walks 14 metres and then turns to her left and walks 10 metres. Again turning to her left she walks 14 metres. What is the shortest distance (in metres) between her starting point and the present position?
- A. 14 B. 24
 C. 28 D. 20
 E. None of the above
46. A deer runs 20 m towards East and turns right, runs 10m and turns right, runs 9 m and again turns left, runs 5 m and then turns left, runs 12 m and finally turns left and runs 6 m. Now, which direction is the deer facing?
- A. South B. West
 C. North D. East
 E. None of the above
47. Krishna walks northwards. After a while, he turns to his right and a little further to his left. Finally, after walking a direction one kilometre, he turns to his left again. In which direction is he moving now?
- A. North B. South
 C. East D. West
 E. Cannot be determined
48. P said to Q "go North, turn right, then right again and then go to the left". Which direction will Q face after following the directions?
- A. North B. South



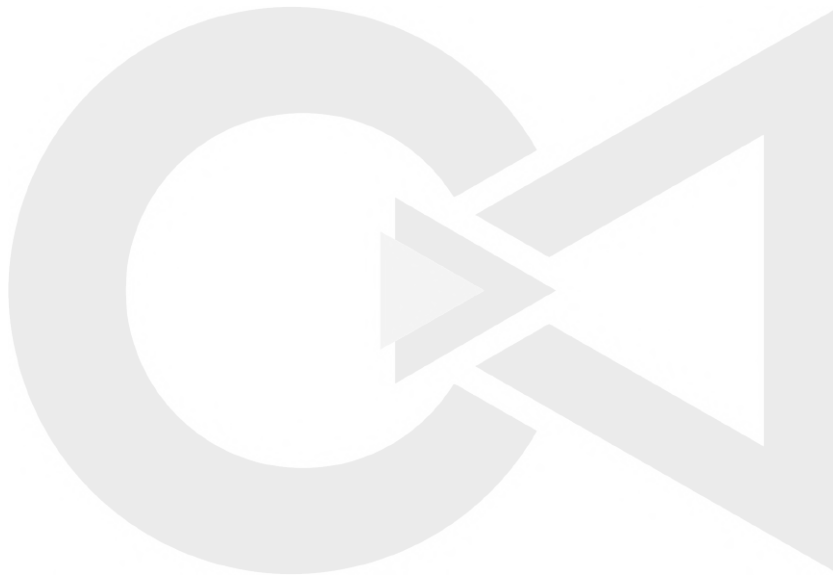
- C. East
E. None of the above
49. Durvesh is facing north. Walking 30m to the left Durvesh decided to visit his aunt. He then took a right turn and walked 10m. Now he finally turns to his right, walks for 5m more and takes a right turn and reaches his aunt's place. Which direction is Durvesh facing now?
- A. North
C. East
- B. South
D. West

- E. None of the above
50. Car A is parked to the right of C. B is parked to the left of W and to the south of C. Q is parked exactly between B and W. In which direction is Q parked w.r.t C?
- A. North-west
C. North-east
E. None of the above
- B. South-east
D. North-west



**ANSWER KEY:**

1) A	11) C	21) D	31) B	41) C
2) E	12) B	22) D	32) C	42) A
3) D	13) C	23) C	33) D	43) D
4) C	14) B	24) C	34) D	44) B
5) C	15) B	25) B	35) C	45) B
6) C	16) E	26) E	36) A	46) C
7) D	17) A	27) B	37) E	47) D
8) B	18) C	28) B	38) E	48) C
9) C	19) E	29) D	39) B	49) B
10) A	20) B	30) A	40) C	50) B





FAMILY TREE

- Family or blood relation questions are the ones related to the real world connections of mother, father, sister, brother, grandfather, grandmother, daughter, and son; along with other relatives connected to the bloodline.
- The term in-law directly relates to the relations formed by marriage and not blood.
- Father or mother above first generation and second generation are termed as Grand. Moreover, the generation even above that will be called Great Grandparents.

Rules:

- Use (+) for Male and (-) for Female

- Keep same generations at same level.
- Use double line for denoting couple.
- Vertical Straight line shows different generations i.e., mother-son, mother-daughter, father-son, father-daughter.
- Horizontal Straight Line shows siblings i.e., brother-brother, brother-sister, sister-sister.
- If you miss a generation due to no information provided then name them '?' for time being.
- Always give Initials for names i.e. R for Raman, Aj for Ajay and Ak for Akash, etc.
- Do not assume genders.

Extended Relation	English Relation	Hindi Relation
Mother's mother	Grandmother	Nani
Mother's father	Grandfather	Nana
Father's mother	Grandmother	Dadi
Father's father	Grandfather	Dada
Mother's brother	Uncle	Mama
Mother's brother's wife	Aunt	Mami
Mother's brother's son	Cousin	-
Mother's brother's daughter	Cousin	-
Mother's sister	Aunt	Mausi
Mother's sister's husband	Uncle	Mausa
Mother's sister's son	Cousin	-
Mother's sister's daughter	Cousin	-
Father's brother	Uncle	Chacha
Father's brother's wife	Aunt	Chachi
Father's sister	Aunt	Bua
Father's sister's husband	Uncle	Fufa
Son's Wife	Daughter-in-law	-
Daughter's Husband	Son-in-law	-
Brother's Wife	Sister-in-law	-
Sister's Husband	Brother-in-law	-
Brother or Sister's Children	Niece/ Nephew	-
Brother of Spouse	Brother-in-law	Saala
Husband of sister	Brother-in-law	Jija
Husband of Spouse's Sister	Brother-in-law	Saala
Sister of Spouse	Sister-in-law	Saali
Wife of brother	Sister-in-law	Bhabi



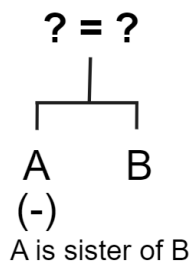
Wife of Spouse's brother	Sister-in-law	Saali
Mother's Side	Maternal	
Father's Side	Paternal	

Solved Examples:
Type 1: Puzzle Based Problems
Question 1:

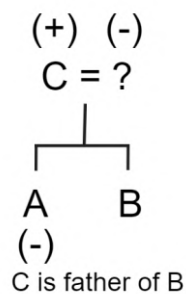
A is sister of B. C is the father of B. D is the wife of C and E is the father of D. How is E related to B?

Solution

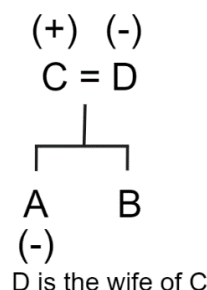
- A is the sister of B
So now we know:
 - A is female
 - A is sister of B
 - B's sex is unknown
 - A and B's parents are unknown



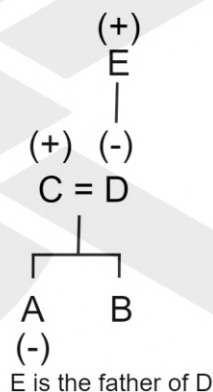
- C is the father of B
So now we know:
 - C is male
 - C is father of B
 - C is also father of A
 - Mother is still unknown



- D is the wife of C
So now we know:
 - D is female
 - D is mother of A and B



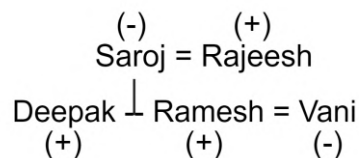
- E is the father of D
So now we know:
 - E is Male
 - E is father of D



Therefore, we can say that E is the grandfather of B.

Question 2:

Saroj is mother-in-law of Vani who is sister-in-law of Deepak. Rajeesh is father of Ramesh, the only brother of Deepak. How is Saroj related to Deepak?

Solution


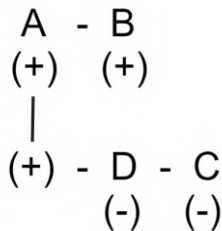
∴ Saroj is the mother of Deepak.

Question 3:



Amit and Balu are brothers and Cynthia and Dhara are sisters. Amit's son is Dhara's brother. How is Balu related to Cynthia?

Solution



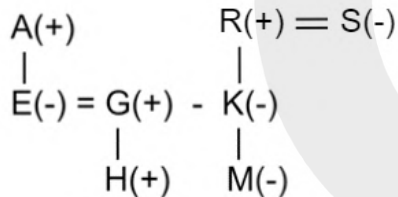
Therefore, Balu is the uncle of Cynthia.

Question 4:

R is the father of K, but K is not his son. M is the daughter of K. S is the wife of R. G is the brother of K. H is the son of G. E is the spouse of G. A is the father of E. Who is the granddaughter of R?

- A. H
- B. M
- C. E
- D. S

Solution



M is the granddaughter of R because M is the daughter of K and K is the daughter of R.

Correct Option: B.

Type 2: Conversation Or Statement Based Questions:

Question 5:

Rahul said, "Alia is the daughter of the sister of my father's only son."

How is Alia related to Rahul?

- A. Daughter
- B. Niece
- C. Sister
- D. Mother

Solution

My father's only son \rightarrow Rahul

Daughter of Rahul's sister \rightarrow Niece

Hence, A is the niece of Rahul.

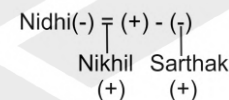
Correct Option: B

Question 6:

Pointing to Sarthak, Nidhi said, "His mother's brother is the father of my son Nikhil." How is Sarthak related to Nidhi?

- A. Wife's brother
- B. Niece
- C. Nephew
- D. Nidhi's son

Solution



Hence, Sarthak is the nephew of Nidhi.

Correct Option: C.

Question 7:

Pointing to a woman on the street, Rahul said, "The son of her only brother's wife's husband is the brother of my wife." How is the woman related to Rahul?

Solution:

$$\text{Woman } (-) - (+) = (-)$$

$$\text{Rahul } (+) = (-) - (+)$$

The questions say that "son of her (lady's) brother's wife's husband," i.e., lady's nephew is his wife's brother, so the son of her brother's wife's husband and brother of a wife are same. \therefore Rahul is the son – in – law of the lady's brother. Based on that information we conclude that the lady is the sister of Rahul's wife's father or Rahul's father- in – law.

Question 8:

Sam goes to New York, and there he meet Nancy, who is the sister of 'Sam's wife. How is 'Nancy related to 'Sam?

- A. Friend



- B. Sister
 C. Cousin
 D. Sister – in – law

Solution

Sam = Sam's Wife - Nancy
 (+) (-) (-)

Nancy is the sister-in-law of Sam as she is the sister of Sam's wife.

Hence option D is the correct one.

∴ **Correct Option: D.**

Type 3: CODE BASED PROBLEMS

Question 9:

A D B means A is the mother of B

A \$ B means A is the sister of B

A * B means A is the father of B

A # B means A is the brother of B

Which of the following means Is R the uncle of T?

- A. R*P#SDQ\$T
 B. S*P#R*U#T
 C. P*R\$Q\$S*T
 D. P*R\$Q\$S*T

Solution

A. R*P#SDQ\$T

R(+)

↓

P(+)-S(-)

↓

Q(-)-T

∴ R is grandfather of T

B. S*P#R*U#T

S(+)

↓

P(+)-R(+)

↓

U(+)-T

∴ R is the father of T

C. P*R\$Q\$S*T

P(+)

↓

R(-)-Q(-)-S(+)

↓

T

∴ R is the uncle of T

D. P*R\$Q\$S#T

P(+)

↓

R(-)-Q(-)-S(+)-T (R is brother of T)

Hence, option C is the correct one.

Question 10:

I + J means; I is the mother of J

I - J means; I is the brother J

I % J means; I is the father of J

I * J means; I is the sister of J

Which of the following shows that A is the maternal uncle of B

- A. B - N + M * A
 B. A + S * N - B
 C. A - M + N * B
 D. B - S % A

Solution

Correct Option: C

M - A

(-) (+)

↓

N - B

(-)

Question 11:

A © B means B is the brother of A

A = B means B is the sister of A

A & B means A is the son of B

A @ B means A is the Mother of B

What does the expression 'E @ F = G © H & I' say?

- A. I is the husband of E
 B. F is the son of I
 C. E is the daughter of I
 D. I is the wife of E

Solution



Correct Option: A

$$E (-) = I (+)$$

↓

$$F (-) = G (+) - H (+)$$

Hence the expression 'E @ F = G © H & I' say that I is the husband of E

Question 12:

A # B means; A is the daughter of B

A © B means; B is the brother of A

A = B means; B is the sister of A

A & B means; A is the son of B

A * B means; A is the father of B

A @ B means; A is the mother of B

Which of the following indicates that 'E is the paternal uncle of A'?

A. E & D # B @ C © A

B. E & D & C @ B © A

C. A & C & B @ D © E

D. A & B # D @ C © E

Solution

$$B (-)$$

↓

$$C (+) - D - (E (+))$$

↓

$$A (+)$$

Correct Option: C

Hence option C indicates that E is the paternal uncle of A.




Exercise – 1
Directions (1–3):

Study the following information carefully and answer the given questions:

U is the husband of V. Z is the mother-in-law of V. W is the Father of U. N is the mother of W, P is the mother of Z and Q.

1. If X is the father of W then how is X related to N?
 A. Mother B. Father
 C. Sister D. Brother
 E. Husband
2. How is P related to U?
 A. Paternal Grandfather
 B. Aunt
 C. Mother
 D. Maternal Grandmother
 E. Wife
3. How is Q related to W?
 A. Sister
 B. Brother
 C. Husband
 D. Can't be determined
 E. Wife

Directions (4–5):

Read the information given below and answer the questions.

All the given members belong to the same family. K is the brother of M. K is the only son of S. X is the father-in-law of M. E is the maternal grandfather of Q, who is male. R is the only son of X. X is the grandfather of O. D is the daughter of O.

4. How is M related to D?
 A. Mother B. Son
 C. Brother D. Father
 E. None of these
5. How is Q related to O?
 A. Mother B. Son
 C. Brother D. Father
 E. None of these
6. In a family of three generations there are six family members i.e., A, B, C, D, E, and R. F is the Son in law of A. B is the brother-in-law of D who has no siblings. D is the only child of C. C is married to A. E is the niece of B. How is A related to E?
 A. Maternal Grandfather
 B. Maternal Grandmother
 C. Father
 D. Mother

E. Cannot be determined

Directions (7–9):

Study the following information carefully and answer the given questions.

Seven members are living in the family of three generations. B is the only daughter of A. M is the spouse of B. C is the father of B. P is the only niece of H, who is a sister of M. N is the sibling of P. There are only three male members in the family.

7. How is A related to P?
 A. Mother
 B. Father-in-law
 C. Mother-in-law
 D. Grandmother
 E. Can't be determined
8. If F is the brother of C then, how is F related to B?
 A. Uncle B. Niece
 C. Aunt D. Nephew
 E. None of these
9. How is M related to C?
 A. Son
 B. Father-in-law
 C. Son-in-law
 D. Mother-in-law
 E. None of these

Directions (10–12):

Study the following information carefully and answer the given questions.

N is the mother of C. B is the husband of N. O is the only brother of C. D is married to O. R is the only child of D. O does not have any sister. K is the father of B

10. If B does not have any grandson, then how is R related to C?
 A. Cannot be determined
 B. Sister-in-law
 C. Daughter-in-law
 D. Neice
 E. Nephew
11. How is B related to D?
 A. Uncle
 B. Cannot be determined
 C. Father-in-law
 D. Nephew
 E. Brother-in-law
12. How is C related to K?



- A. Father
- B. Nephew
- C. Brother-in-law
- D. Brother
- E. Grandson

Directions (13-14):

Study the following information carefully and answer the questions given below:

Seven family members are living in a family. P and R are only sisters of Q. W is the father of Q. N is married to W. Q is married to V. V has no siblings. S is the paternal grandfather of Q. N has only three children. V is not a son in law of N.

13. How many females are living in the family?

- A. Two
- B. Four
- C. More than four
- D. Three
- E. None of these

14. How is N related to S?

- A. Daughter
- B. Mother-in-law
- C. Daughter in law
- D. Mother
- E. Wife

Directions (15-16):

Study the information carefully and answer the questions given below.

A, B, C, D, E and F are six family members. E is the son of D, who is not the mother of E. B is the brother of D. F and D are a married couple. C is the daughter of F, who is sister of A.

15. How many female members are there in the family?

- A. Two
- B. Three
- C. Four
- D. Can't be determined
- E. None of these

16. How is E related to C?

- A. Mother
- B. Father
- C. Sister
- D. Brother
- E. None of these

Directions (17-18):

Study the information carefully and answer the questions given below.

Z is the sister of D. D is married to M. M is the father of C. B is the son of A. D is the mother-in-law of A. M has only one son and no daughter. Z is married to E. N is the daughter of Z. C is married to A.

17. How is A related to M?

- A. Uncle
- B. Son
- C. Daughter in law
- D. Grandson
- E. None of these

18. How is Z related to C?

- A. Mother
- B. Sister
- C. Aunt
- D. Mother-in-law
- E. None of these

19. If P is the daughter of U. W is married to U. U is the brother of Q. B is married to P. How is W related to B?

- A. Mother-in-law
- B. Mother
- C. Aunt
- D. Daughter
- E. None of these

20. Pointing to a person, a lady says, "He is the father of my only daughter-in-law's father-in-law". How is the woman related to that Person?

- A. Mother-in-law
- B. Sister
- C. Mother
- D. Daughter-in-law
- E. Daughter

21. P has only 2 sons Q and R. Q is the husband of S. T is the mother-in-law of S and U. W is the son of U. How is P related to W?

- A. Grandfather
- B. Father
- C. Brother
- D. Father-in-law
- E. Uncle


Directions (22-23):

Study the following information carefully and answer the question given below:

Nine people belong to a family of three generations. W is the only child of Y. L is the sister-in-law of Z. X is the only daughter of B and she is unmarried. P is the grandson of E. M is married to the one who is brother of Y. E is the mother in law of L. B is the father of Z.

22. How is W related to Z?
- Brother
 - Sister
 - Aunt
 - Mother
 - Either Niece or Nephew
23. Who among the following is the daughter of the one who is the mother-in-law of M?
- E
 - B
 - X
 - W
 - P

Directions (24-26):

Read the following information carefully and answer the questions given below:

Nine family members B, D, E, H, J, L, M, N and X are going for lunch. There are three generations in the family. B and her husband reached there by car. D's sister-in-law, M's wife and N's father are already waiting in a restaurant. L is the sister of N and likes Chinese. D, who is the son of the husband of J ordered Indian food. The grandson of M likes chocolate ice-cream. E, who is the mother-in-law of D, does not like the food at that restaurant. L's father M whose only son N came one hour late for lunch. H is not the youngest member in the family. N is an unmarried person of the family.

24. If N is married to W, then how is B related to W?
- Cousin
 - Father-in-law
 - Sister-in-law
 - Niece
 - Can't be determined
25. Who among the following is the father of D?
- N
 - H
 - E
 - J
 - Can't be determined
26. How is X related to L?
- Niece
 - Nephew

- Sister
- Brother
- Can't be determined

Directions (27-28):

In the following questions, the symbols #, &, @, *, \$, % and © are used with the following meanings as illustrated below.

Study the following information and answer the given questions:

A#B - A is the son of B.

A@B - B is the child of A.

A©B - A is the parent of B.

A\$B - A is older than B.

A*B - A is the husband of B.

A&B - B is the daughter-in-law of A.

A%B - A is the wife of B.

27. If P@Q*S&V%T\$U#S, then how is U related to P?
- Grandfather
 - Grandson
 - Daughter
 - Wife
 - None of these
28. If I*N©P\$O#N, the age of O is 20 years and the age of I is 40 years then what is the probable age of P?
- 17 years
 - 15 years
 - 23 years
 - 45 years
 - 12 years
29. If 'A \$ B' means 'A is father of B', 'A # B' means 'A is daughter of B', 'A @ B' means 'A is sister of B', then how is L related to N in I @ L \$ M # N ?
- Husband
 - Uncle
 - Father
 - Cannot be determined
 - None of these
30. If 'P \$ Q', means 'P is father of Q', 'P # Q' means 'P is mother of Q'; 'P * Q' means 'P is sister of Q', then how is E related to O in O # B \$ C * E?
- Nephew
 - Grandson
 - Granddaughter
 - Cannot be determined
 - None of these


Directions (31-33):

Study the following information carefully and answer the questions given below:

'A # B' means 'A is father of B'

'A \$ B' means 'A is mother of B'

'A @ B' means 'A is son of B'

'A Y B' means 'A is brother of B'

31. How is M related to Q in the given expression?
Q # U \$ L Y M
A. Brother
B. Sister
C. Grandson
D. Daughter
E. Can't be determined
32. In which of the following expressions X is sister of R?
A. X \$ U # R Y I
B. I # U \$ R Y X
C. R Y X \$ O @ T
D. X Y R \$ Q @ D
E. None of these
33. How is B related to G in the given expression?
B Y C \$ E @ G
A. Brother
B. Daughter
C. Wife
D. Brother-in-law
E. None of these

Directions (34-36):

Study the following information carefully and answer the questions given below:

'A – B' means 'A is sister of B'

'A × B' means 'A is husband of B'

'A \$ B' means 'A is brother of B'

'A + B' means 'A is father of B'

34. In the expression $N + S \times R - W \$ M$ how is W related to N?
A. Brother-in-law
B. Sister-in-law
C. Brother
D. Can't be determined
E. None of these
35. Which of the following is true for the given expression?
 $F + N - T + X \$ C$
A. C is daughter of T

B. F is grandfather of C

C. N is uncle of X

D. T is sister of N

E. None of these

36. In the expression $P + Q - R + S \$ T$ how is Q related to T?
A. Grandfather
B. Grandson
C. Daughter
D. Granddaughter
E. None of these

Directions (37-39):

In the following questions, the symbols #, &, @, *, \$, % and © are used with the following meanings as illustrated below.

Study the following information and answer the given questions:

P@Q – P is the son of Q.

P#Q – P is the child of Q.

P©Q – P is the parent of Q.

P\$Q – P is younger than Q.

P%Q – Q is sister of P.

P&Q – Q is the son-in-law of P.

P*Q – P is the husband of Q.

37. If $G@I\%H\&J*K$, then how is I related to K?
A. Mother
B. Uncle
C. Aunt
D. Either B. or C.
E. None of these
38. If $G\%I©J\#K©L\%H$ and K has only one daughter, then how is J related to G?
A. Nephew
B. Niece
C. Brother-in-law
D. Cannot be determined
E. Son
39. If $G\&H©J\#K\%L$ and $L\$K$, and if the ages of G and K are 55 and 35 respectively, what could be the possible age of L?
A. 34
B. 33
C. 56
D. 40
E. Either A. or B.

Directions (40-43):

Study the following information carefully and answer the questions that follow:



'P × Q' means 'Q is the father of P'

'P ÷ Q' means 'Q is the brother of P'

'P + Q' means 'Q is the daughter of P'

'P - Q' means 'Q is the mother of P'

'P = Q' means 'Q is the wife of P'

40. Which of the following expression means 'H is the Father-in-law of K'?
- $H = G + I \div J + K$
 - $G - H \div I \times J + K$
 - $G = H + I \div J + K$
 - $G \div H + I \div J = K$
 - None of these
41. From the expression 'O × P - Q + R ÷ S' how is O related to R?
- Daughter
 - Nephew
 - Niece
 - Either B. or C.
 - None of these
42. Which of the following expressions means 'T is the maternal grandmother of P'?
- $P - Q \div R \times S = T$
 - $P - Q \div R \times S \times T$
 - $P - Q + R \times S \div T$
 - $P = Q + R \div S + T$
 - $P + Q \div R + S - T$
43. If the expression 'O + P ÷ Q = R - S' is true, which of the following is definitely false?
- P is the sister-in-law of R
 - Q is the son of O
 - P is the daughter of O
 - R is the daughter-in-law of O
 - Q is the son of S
44. Introducing Sania, Atul says, "She is the wife of the only nephew of the only brother of my mother." How is Sania related to Atul?
- Wife
 - Sister
 - Sister-in-law
 - Aunt
 - Data inadequate

Directions (45-47):

Study the following information carefully and answer the questions given below:

Eight persons A, B, C, D, E, F, G and H are living in a family. There are two married couples in the family. There are only four male members in the family. B is the grand-daughter of C. D is the son of C and brother of A, who has two children. F is the father-in-law of G. B is the sister of E, who is the nephew of D. G has only one sister. D is unmarried. A is not the mother of E.

45. How is E related to F?
- Daughter
 - Grandson
 - Granddaughter
 - Son
 - Can't be determined
46. If M is the brother of E then, how M is related to H?
- Niece
 - Sister
 - Brother
 - Nephew
 - None of these
47. Four of the following five are alike in a certain way and hence they form a group. Which one of the following does not belong to that group?
- C
 - G
 - H
 - B
 - D

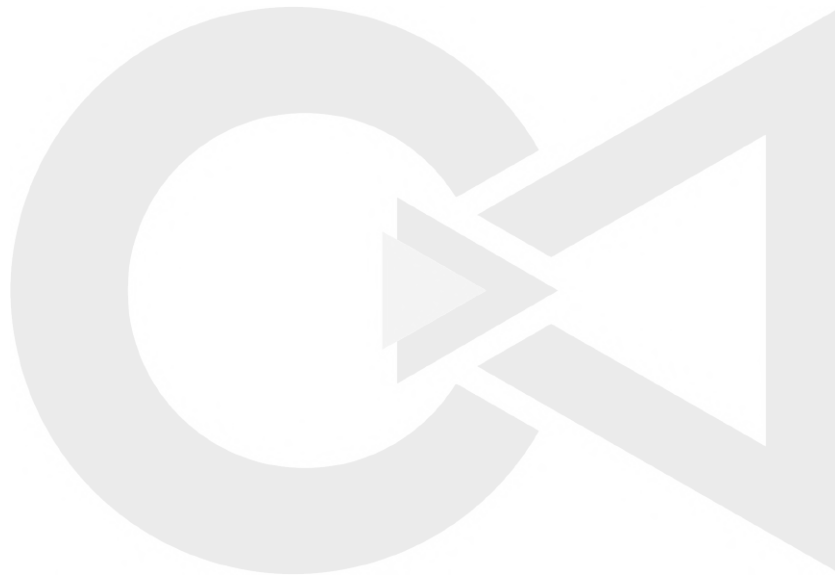
Direction (48-50): Study the following information carefully and answer the questions given below:

There are eight members of three generations living in a family. U is the grandfather of V, who is the child of P. Q and S are siblings of T, who is the only son of U. W is the only grandson of U. R is the spouse of Q, who has only one child. V is the child of S.

48. How many male members are in the family?
- Three
 - Four
 - Five
 - Six
 - Can't be determined
49. How is V related to T?
- Daughter
 - Son
 - Nephew
 - Niece
 - Can't be determined
50. If H is the spouse of U, then how is H related to Q?
- Father
 - Son
 - Mother
 - Aunt
 - Can't be determined

**ANSWER KEY:**

1) E	11) C	21) A	31) E	41) D
2) D	12) E	22) E	32) C	42) A
3) D	13) B	23) C	33) D	43) E
4) E	14) C	24) C	34) E	44) A
5) C	15) D	25) B	35) B	45) B
6) E	16) D	26) B	36) E	46) D
7) D	17) C	27) B	37) D	47) E
8) A	18) C	28) C	38) A	48) C
9) C	19) A	29) A	39) E	49) D
10) D	20) D	30) D	40) D	50) C





CODED INEQUALITIES

Introduction

Inequality is a phenomenon that we have known or come across for a while now. It simply means something that is not equal in all the sense whether social, economical or mathematical sense. But today we are talking about Inequalities in mathematical terms. Each one of you has seen signs such as " $>$ ", " \neq ", " \leq " etc. at some point of time or other. And all those who had math's in their high school are thoroughly acquainted with the concept and comfortable in solving problems of Inequalities.

The term "coded inequality" refers to a collection of components that are each indicated by their own unique coding relationship.

In this form of reasoning about inequality, inequality symbols will be given codes, and the expression will be supplied using those codes. Candidates are required to decipher the symbols and determine the connection between the various components.

Tips to Solve Coded Inequality Questions

- When attempting to solve questions involving coded inequalities, it is important to keep in mind the signs and representations that are included in the problem. This makes it much simpler to provide an accurate response to the question without making any mistakes.
- Between any two items, the sign should never be changed. On the other hand, the meaning can be expressed either through $H > G$ or $G > H$.
- Create a table or any other diagram with the sign of each code mentioned in it. You wouldn't need to spend as much time on it, and you'd come away with a deeper comprehension of the issue at hand.
- If there is a single component that appears more than once in a statement, the statement should be combined in order to prevent the recurrence of components.

CONCEPT:

Signs used to denote Inequality	Meaning
If $a \neq b$, then	\neq denotes not equal to, i.e. a is not equal to b
If $a \leq b$, then	' \leq ' denotes less than or equal to, i.e. a is less than b or at most b
If $a \geq b$, then	' \geq ' denotes greater than or equal to, i.e. a is greater than b or at least b
Strict Inequalities	
If $a < b$, then	' $<$ ' denotes less than, i.e. a is less than b
If $a > b$, then	' $>$ ' denotes greater than, i.e. a is greater than b



Types of Inequality:

A) Single statement Inequality:

In this type of question, the relation between the elements is given in a single series by coded relationship symbols i.e. $<$, $>$, $=$, \leq , \geq and \neq . For example;

Q. Statement:

$$A < N = U > F > B > H$$

Conclusion:

I. $H < N$ (true)

II. $F > A$ (false)

Q. Statement:

$$T < D > G < F > B > H$$

Conclusion:

I. $G < H$ (false)

II. $F > T$ (false)

B) Multiple statements Inequality:

In this type of question, the relation between the elements is given in two or more different series. To get the exact relation, we have to arrange it by matching the similar elements in a single series. For example;

Q. Statement:

$$T < D > G, P < F = T$$

Conclusion:

I. $P < G$

II. $G > T$

Solution

Here, first, we have to arrange it in a single series to get the definite relation.

$$P < F = T < D > G$$

I. $P < G$ (false)

II. $G > T$ (false)

Q. Statement:

$$T < S < D = F, F \geq Q > E = R$$

Conclusion:

I. $R < D$

II. $Q > T$

Solution

Here, first, we have to arrange it in a single series to get the definite relation.

$$T < S < D = F \geq Q > E = R$$

I. $R < D$ (true)

II. $Q > T$ (false)

C) Not equal types Inequality:

In this type of question, the ' \neq ' (not equal) relation are given between the elements. The not equal symbol is meant to

show a comparison between the two quantities which are unequal hence, among the two quantities one will be either greater or smaller than the other quantity. To get the exact relation, we have to consider the both possibilities i.e. either ' $>$ ' or ' $<$ '. For example;

Q. Statement:

$$T < S < D = Q, T \neq P = X < Z < R,$$

Conclusion:

I. $X < D$ (False) (\neq means either $>$ or $<$)

II. $Q > P$ (False) (\neq means either $>$ or $<$)

Q. Statement:

$$R \neq S > Y \neq Q, P < F = R = E < T,$$

Conclusion:

I. $P < T$ (true)

II. $S < F$ (false) (\neq means either $>$ or $<$)

D) Filler Inequality:

In this type of question, the relation between the elements is not given and in the place of coded symbols (which represented by $<$, $>$, $=$, \leq , \geq and \neq) blank or space was/were given. You have to find out the proper coded symbol/s to fill the blank or space according to a certain conditions which generally mentioned with the questions. For example;

Q. Which of the following order of letters (from left to right) in the blanks makes the expression, $C > P$ definitely true?

$$___ = ___ > ___ \leq ___ = ___$$

A) Z, T, C, D, P

B) T, P, D, C, Z

C) P, T, C, D, Z

D) D, C, T, Z, P

E) None

Solution: (E) None

E) Conditional Inequality:

It is an inequality which is true for some variables or for a particular condition but not true for all values of variables. And the solution of inequality consists of only real numbers as the term "Less than or Greater than" are not defined for establish a certain relation. For example;

Q1. Which of the following statements prove that ' $W > F$ ' is definitely true?

I. $A \geq J < K = W \geq L > Z; J > N = S \leq F$

II. $W < P < Q \leq K > J > Z; Z = H \geq S = A < F;$

III. $S < J < W = O \leq L < Q; S = P \leq K < F = J$

Answer: III

Q2. Which of the following statements prove that ' $K > S$ ' is definitely true?

I. $A \geq J < K = W \geq L > Z > N = S \leq H$

II. $W < P < Q \leq K > J > Z; C = H \geq S = A < L < W;$



III. $S < J < W = O \leq L < Q = P \leq K > D = J < L$

Answer: I, II and III

F) Coded Inequality:

In case of coded inequality, questions consists of a couple of statements with some logical and arithmetic relationship between them. Such type of Inequality followed by a couple of conclusions and you'll have to find out which conclusion follows the given statements. For example;

In these questions, the relationship between different elements is shown in the statement. The statement is followed by two conclusions. Choose the correct answer on the basis of the information given below.

- A. If only conclusion I is true.
- B. If only conclusion II is true.
- C. If either conclusion I or II is true.
- D. If both conclusions I and II are true.
- E. None of these E. If neither conclusion I nor II is true.

In the following questions, the symbols %, @, #, &, \$ are used. All the symbols define the following meanings.

$Y \# Z$ means that 'Y is equal to Z'

$Y \& Z$ means that 'Y is greater than Z'

$Y \$ Z$ means that 'Y is greater than or equal to Z'

$Y \% Z$ means that 'Y is smaller than Z'

$Y @ Z$ means that 'Y is smaller than or equal to Z'

For example;

Q. Statements:

$O \$ M$; $P \# M$; $R \% P$;

Conclusions:

I) $P \% O$

II) $P \# O$

Answer: C

Solution

Step 1 – Decode the given symbols as shown below:

Symbols	%	@	#	&	\$
Meaning	<	≤	=	>	≥

Step 2 – Now decode the given statements with the help of the above table:

So, after decoding the statements, we have;

$O \geq M$; $P = M$; $R < P$.

After arranging, we have;

$R < P = M \leq O$

Step 3 – Now based on the given statement; we can conclude that either $O > P$ or $O = P$ will be true.

So, the correct answer is C.


Solved Examples:
1. Statement: $Q \geq P = R \geq N < G \geq E > S$
Conclusions: I. $Q \geq N$ II. $R > E$

- A. If only conclusion I is true.
 B. If only conclusion II is true.
 C. If either conclusion I or II is true.
 D. If neither conclusion I nor II is true.
 E. If both conclusions I and II are true.

Answer: A
Solution
Given statement :

$$Q \geq P = R \geq N < G \geq E > S$$

Thus, $Q \geq N$ is true. Hence, conclusion I is true. Again, we can't compare R and E.

Hence, conclusion II does not hold true.

Hence, option A is correct.

2. Statement: $Q \geq P = R \geq N < G \geq E > S$
Conclusions: I. $G > P$ II. $S < R$

- A. If only conclusion I is true.
 B. If only conclusion II is true.
 C. If either conclusion I or II is true.
 D. If neither conclusion I nor II is true.
 E. If both conclusions I and II are true.

Answer: D
Solution
Given statement :

$$Q \geq P = R \geq N < G \geq E > S$$

Thus, we can't compare G and P or S and R.

Hence, conclusion I and II both are not true.

Hence, option D is correct.

3. In which of the following expressions 'W > Z' as well as 'Y > Z' hold definitely true?

- A. $W > X > U = Z < H \leq Y$
 B. $W \geq X = U > Z \leq H < Y$
 C. $W = X > U \geq Z < H < Y$
 D. All of the above
 E. None of the above

Answer: D
Solution

In order to ensure the statement that holds 'W > Z' and 'Y > Z' definitely true, we have to check all the options one by one.

For option A:

$$W > X > U = Z < H \leq Y$$

Here, the common sign between W and Z is '>', thus it follows $W > Z$.

The common sign between Z and Y is also '<', thus it follows $Z < Y$ or $Y > Z$.

For option B:

$$W \geq X = U > Z \leq H < Y$$

Here also, the common sign between W and Z is '>', thus it follows $W > Z$.

The common sign between Z and Y is also '<', thus it follows $Z < Y$ or $Y > Z$.

For option C:

$$W = X > U \geq Z < H < Y$$

Here again, the common sign between W and Z is '>', thus it follows $W > Z$.

The common sign between Z and Y is also '<', thus it follows $Z < Y$ or $Y > Z$.

Since all the three expressions hold the given conclusions true, option D "all of the above" is correct.

Hence option D is correct.

Directions: Study the following information carefully and answer the question given below.

'P % Q' means 'P is not smaller than Q.'

'P * Q' means 'P is neither greater than nor equal to Q.'

'P δ Q' means 'P is neither smaller than nor equal to Q.'

'P \$ Q' means 'P is neither greater than nor smaller than Q.'

'P © Q' means 'P is not greater than Q.'

1. Statements: D \$ T, T % M, M * J

Conclusions: I. J δ D II. M © D

- A. if only conclusion I is true
 B. if only conclusion II is true
 C. if either conclusion I or II is true
 D. if neither conclusion I nor II is true
 E. if both conclusions I and II are true

Answer: B
Solution

As per the information given,

1. D \$ T means $D = T$

2. T % M means $T \geq M$

3. M * J means $M < J$

So, the final equation will be,

$$D = T \geq M < J$$

Now, the Conclusion I. J δ D means $J > D$

the Conclusion II. M © D means $M \leq D$

Hence, only Conclusion II is true.

2. Statements: 8 * K, K \$ N, N % R



Conclusions: I. $R \$ K$ II. $R * K$

- A. if only conclusion I is true
- B. if only conclusion II is true
- C. if either conclusion I or II is true
- D. if neither conclusion I nor II is true
- E. if both conclusions I and II are true

Answer: C

Solution

As per the information given,

- 1. $8 * K$ means $8 < K$
- 2. $K \$ N$ means $K = N$
- 3. $N \% R$ means $N \geq R$

So, the final equation will be,

$$8 < K = N \geq R$$

Now, the Conclusion I. $R \$ K$ means $R = K$

the Conclusion II. $R * K$ means $R < K$

It's clear that either Conclusion I or Conclusion II follows.

3. Statements: $H \% F$, $F * W$, $W \$ E$

Conclusions: I. $E \delta F$ II. $H \delta W$

- A. if only conclusion I is true
- B. if only conclusion II is true
- C. if either conclusion I or II is true
- D. if neither conclusion I nor II is true
- E. if both conclusions I and II are true

Answer: A

Solution

As per the information given,

- 1. $H \% F$ means $H \geq F$
- 2. $F * W$ means $F < W$
- 3. $W \$ E$ means $W = E$

So, the final equation will be,

$$H \geq F < W = E$$

Now, the Conclusion I. $E \delta F$ means $E > F$

the Conclusion II. $H \delta W$ means $H > W$

Hence, Only Conclusion I is true.

4. Statements: $Z \delta D$, $D \odot K$, $K \delta M$

Conclusions: I. $M * D$ II. $Z \delta K$

- A. if only conclusion I is true
- B. if only conclusion II is true
- C. if either conclusion I or II is true
- D. if neither conclusion I nor II is true
- E. if both conclusions I and II are true

Answer: D

Solution

As per the information given,

- 1. $Z \delta D$ means $Z > D$
- 2. $D \odot K$ means $D \leq K$
- 3. $K \delta M$ means $K > M$

So, the final equation will be,

$$Z > D \leq K > M$$

Now, the Conclusion I. $M * D$ means $M < D$

the Conclusion II. $Z \delta K$ means $Z > K$

Hence, neither Conclusion I nor II is true.

5. Statements: $W \odot B$, $N \delta B$, $N \odot F$

Conclusions: I. $F \delta B$ II. $W * N$

- A. if only conclusion I is true
- B. if only conclusion II is true
- C. if either conclusion I or II is true
- D. if neither conclusion I nor II is true
- E. if both conclusions I and II are true

Answer: E

Solution

As per the information given,

- 1. $W \odot B$ means $W \leq B$
- 2. $N \delta B$ means $N > B$
- 3. $N \odot F$ means $N \leq F$

So, the final equation will be, $W \leq B < N \leq F$

Now, the Conclusion I. $F \delta B$ means $F > B$

the Conclusion II. $W * N$ means $W < N$

Hence, both Conclusions I and II are true.


Exercise - 1
Directions (1-5):
A. If only conclusion (I) follows
B. If only conclusion (II) follows
C. If both conclusions (I) and (II) follows
D. If neither conclusion (I) nor conclusion (II) follows
E. If either conclusion (I) or conclusion (II) follows

1. Statement:
- $Z \geq L > Y > M$
- ;
- $H = B < E \leq Y \geq U$

Conclusion:

 I. $H < Z$

 II. $U \leq M$

2. Statement:
- $P > Q \geq R$
- ;
- $S \leq T < Q$

Conclusion:

 I. $T > R$

 II. $S < P$

3. Statement:
- $A \leq B < C$
- ;
- $D > C > E$

Conclusion:

 I. $D > A$

 II. $E < B$

4. Statement:
- $M \leq N > O$
- ;
- $P > Q \geq O$

Conclusion:

 I. $P > M$

 II. $Q > N$

5. Statement:
- $H > G \geq F$
- ;
- $E \leq F < D$

Conclusion:

 I. $H > E$

 II. $G \geq E$
Directions (6-10):
A. If only conclusion (I) follows
B. If only conclusion (II) follows
C. If both conclusions (I) and (II) follows
D. If neither conclusion (I) nor conclusion (II) follows
E. If either conclusion (I) or conclusion (II) follows

6. Statement:
- $A > B = C$
- ;
- $D < C \leq E$
- ;
- $F > E$

Conclusion:

 I. $F > B$

 II. $D < A$

7. Statement:
- $X > Y \geq Z$
- ;
- $A < B \leq Y > C$

Conclusion:

 I. $A < X$

 II. $C < Z$

8. Statement:
- $P \geq Q > R$
- ;
- $S > T \geq Q$
- ;
- $U \leq R < V$

Conclusion:

 I. $S > V$

 II. $U < P$

9. Statement:
- $M > N \geq O$
- ;
- $P < O \leq Q$
- ;
- $R \geq Q > S$

Conclusion:

 I. $M > R$

 II. $P < S$

10. Statement:
- $W \leq X > Y$
- ;
- $A < Y \geq Z$
- ;
- $B > Z < C$

Conclusion:

 I. $A < W$

 II. $C > X$
Directions (11-15):

11. Statements:
- $Q < D \leq U$
- ,
- $U = G > C$
- ,
- $Y < G \leq M$

 Conclusions: $M > C$, $Q > Y$

A. Both conclusions I and II follow

B. Either conclusion I or II follows

C. Only conclusion I follows

D. Only conclusion II follows

E. Neither conclusion I nor II follows

12. Statements:
- $X > C \geq Z$
- ,
- $D \geq X < P$
- ,
- $R < D > K$

 Conclusions: $Z < P$, $D > C$

A. Both conclusions I and II follow

B. Either conclusion I or II follows

C. Only conclusion I follows

D. Only conclusion II follows

E. Neither conclusion I nor II follows

13. Statements:
- $F < I < E$
- ,
- $J < U > C$
- ,
- $F = C < T$

 Conclusions: $I < C$, $U = T$

A. Both conclusions I and II follow

B. Either conclusion I or II follows

C. Only conclusion I follows

D. Only conclusion II follows

E. Neither conclusion I nor II follows

14. Statements:
- $C < D = A$
- ,
- $J \leq H < A$
- ,
- $T > J \geq C$

 Conclusions: $H > C$, $H = C$

A. Both conclusions I and II follow

B. Either conclusion I or II follows

C. Only conclusion I follows

D. Only conclusion II follows

E. Neither conclusion I nor II follows

15. Statements:
- $Y \geq K > J$
- ,
- $R = M \geq K$
- ,
- $Q \leq L < M$

 Conclusions: $R > J$, $Y > R$

A. Both conclusions I and II follow

B. Either conclusion I or II follows

C. Only conclusion I follows

D. Only conclusion II follows

E. Neither conclusion I nor II follows

**Direction (16-20):****A \$ B** means that 'A is not smaller than B'**A # B** means 'A is not greater than B'**A @ B** means that 'A is neither smaller than nor equal to B'**A & B** means that 'A is neither greater than nor equal to B'**A % B** means 'A is neither greater than nor smaller than B'

Choose correct option for each question

A. If only conclusion (I) follows**B.** If only conclusion (II) follows**C.** If both conclusions (I) and (II) follows**D.** If neither conclusion (I) nor conclusion (II) follows**E.** If either conclusion (I) or conclusion (II) follows16. Statement: $H \% J, J \& N, N @ R$ Conclusion: I. $R \% J$ II. $H @ J$ 17. Statements: $M @ J, J \$ T, T \& N$ Conclusions: I. $N \# J$ II. $T \& N$ 18. Statements: $G \% M, T \$ N, M \# T$ Conclusion: I. $T @ G$ II. $T \% G$ 19. Statements: $X \$ Y, Y @ Z, W \% Y$ Conclusion: I. $X \$ W$ II. $W @ Z$ 20. Statements: $P @ S, R \# S, Q @ R$ Conclusion: I. $P @ Q$ II. $Q @ P$ **Directions (21-25):****A\$B** means A is not smaller than B**A%B** means A is not greater than B**A@B** means A is neither smaller than nor equal to B**A©B** means A is neither greater than nor equal to B**A*B** means A is neither greater than nor smaller than B21. Statements: $P © Q, Q \% R, R @ S$ Conclusions: I. $S © Q$ II. $R @ P$ III. $R \$ P$

A. Only I is true B. Only II is true

C. Either I or II true D. Only III is true

E. All I, II and III are true

22. Statements: $A * B, B \$ C, C @ D$ Conclusions: I. $D © B$ II. $C \% A$ III. $D © A$

A. Only I is true B. Only II is true

C. Only III is true D. Neither I nor II true

E. All I, II and III are true

23. Statements: $E \$ F, F @ G, G \% H$ Conclusions: I. $H @ G$ II. $G \% E$ III. $H @ E$

A. Only I is true B. Only II is true

C. Only III is true D. None follow

E. All I, II and III are true

24. Statements: $H \% I, I @ J, J \$ K$ Conclusions: I. $K © I$ II. $K \% I$ III. $K © H$

A. Only I is true

B. Only II is true

C. Only III is true

D. Neither I nor II true

E. All I, II and III are true

25. Statements: $M © N, N * O, O \% P$ Conclusions: I. $O @ M$ II. $P \$ N$ III. $P @ M$

A. Only I is true

B. Only II is true

C. Only III is true

D. Neither I nor II true

E. All I, II and III are true

Directions (26 -30):**P @ Q** means P is either greater than or equal to Q**P + Q** means P is either smaller than or equal to Q**P % Q** means P is greater than Q**P x Q** means P is smaller than Q**P \$ Q** means P is neither greater than nor smaller than Q26. Statements: $B @ S, S \% T, T \$ C$ Conclusion: I. $C x B$, II. $T x B$

A. If only conclusion I is true

B. If only conclusion II is true

C. If either I or II is true

D. If neither I or II is true

E. If both I and II is true

27. Statements: $H \% Z, B + Z, B @ A$ Conclusion: I. $A \$ Z$, II. $Z \% A$

A. If only conclusion I is true

B. If only conclusion II is true

C. If either I or II is true

D. If neither I or II is true

E. If both I and II is true

28. Statements: $F \$ M, M \% E, E @ R$ Conclusion: I. $R x F$, II. $E + F$

A. If only conclusion I is true

B. If only conclusion II is true

C. If either I or II is true

D. If neither I or II is true

E. If both I and II is true

29. Statements: $H + T, T x U, U \$ J$ Conclusion: I. $J @ T$, II. $H + U$

A. If only conclusion I is true

B. If only conclusion II is true

C. If either I or II is true

D. If neither I or II is true

E. If both I and II is true

30. Statements: $Y x T, T @ R, R + D$ Conclusion: I. $D \% T$ II. $Y + R$

A. If only conclusion I is true



- B. If only conclusion II is true
- C. If either I or II is true
- D. If neither I or II is true
- E. If both I and II is true

Directions (31– 35):**'P \$ Q' means 'P is not smaller than Q'****'P @ Q' means 'P is neither smaller than nor equal to Q'****P # Q' means 'P is neither greater than nor equal to Q'****'P & Q' means 'P is neither smaller than nor greater than Q'****'P * Q' means 'P is not greater than Q'**

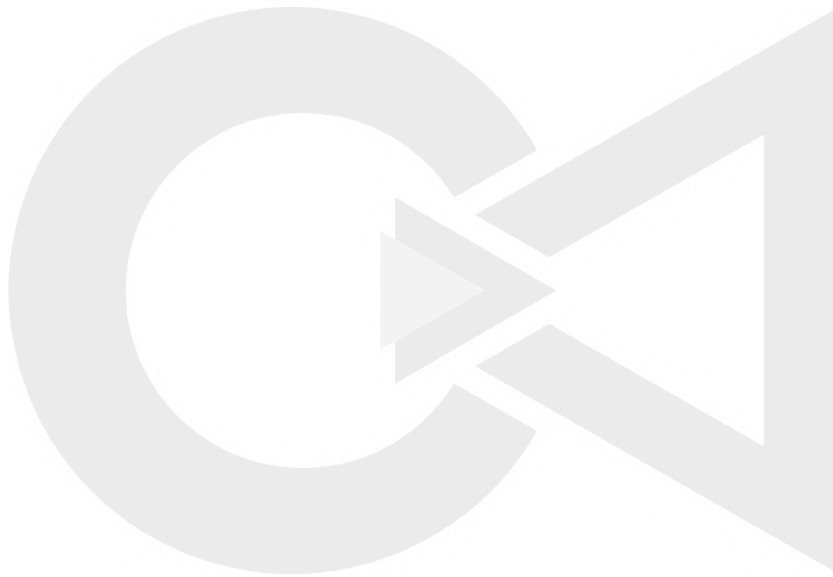
31. Which of the given symbols can be placed in blank spaces respectively (in the same order from left to right) such that all the three expressions L\$F, B#L and E@B definitely holds true? S _ B _ F _ E _ L
- | | |
|----------------------|-----------------------|
| A. \$, #, &, * | B. #, #, *, * |
| C. \$, #, *, & | D. Either 1 or 2 or 3 |
| E. None of the above | |
32. Which of given symbols can be placed in blank spaces respectively (in the same order from left to right) such that all the expression M@F is definitely true and Either F&K or F#K is true? K _ B _ F _ H _ M
- | | |
|-----------------|----------------|
| A. &, \$, @, # | B. &, &, #, * |
| C. \$, \$, *, * | D. \$, &, *, & |

E. &, \$, #, *

33. What symbol will come in between P and N such that all the given expressions R@P, P & N, P*R, S \$ N are definitely false? S \$ P _ N * R
- | | |
|------|-------|
| A. # | B. \$ |
| C. * | D. @ |
| E. & | |
34. Statements: C\$E; F@M; C\$Z; E\$F; N&E
Conclusions:
- | | |
|----------|---------|
| I. F@Z | II. Z@E |
| III. E@M | IV. N@C |
- A. Only I is true
B. Only II is true
C. Only III is true
D. Either II or III is true
E. None
35. Which of the given symbol must be placed in blank which is between T and F such that all the three expressions V\$F, T#V and E@T definitely holds true? H = T _ F ≤ E = V
- | | |
|------|-------|
| A. & | B. * |
| C. @ | D. \$ |
| E. # | |

**ANSWER KEY:**

1) A	11) C	21) B	31) D
2) B	12) A	22) E	32) E
3) A	13) E	23) D	33) D
4) D	14) B	24) A	34) C
5) C	15) C	25) E	35) E
6) C	16) D	26) E	
7) A	17) B	27) C	
8) B	18) E	28) A	
9) D	19) C	29) D	
10) D	20) D	30) D	





CODING DECODING

Introduction

The code is the system of symbols, letters, or words given certain arbitrary meaning and is used for transferring messages which require secrecy or conciseness. Coding is a method of transmitting messages between sender and receiver which is not understood by any third person. Conspicuously, these codes contain various patterns, principles or arrangements which allow the receiver to crack the message or code at the other end using the similar pattern principles or arrangements involved.

Definition of coding decoding logic

Logical coding decoding is the process of reasoning from the statements to reach to certain logical conclusions. Decoding reasoning drives in the same direction of the conditions, and relations located with the conclusions. The decoding of any message depends on the understanding and interpretation of the audience member.

Before looking at the different types of questions and some of the codes that can be used with the help of examples, let us first understand what we mean by coding and decoding. When we say coding, a particular code or pattern is used to express a word in English language as a different word or in a different form. The coded word itself does not make any sense unless we know the pattern or code that has been followed. Decoding refers to the process of arriving at the equivalent English word from the code word given. In the questions, a particular code is given and on the basis of this given code, we have to find out how another word (in English language Can be coded). The correct code for the given word has to be selected from the answer choices on the basis of the code given in the question.

Here, are quick and easy tips and tricks and shortcuts to solve coding deductive logic quickly and competently in competitive exams

Constant adding and subtracting the position of the letters.

- | | |
|---|--|
| I. Signifying the position of the letters in the alphabetical order. | IV. Squaring the number of letters. |
| II. Adding the positions of the letters for making the code of different words. | V. Arrangement of the letters in alphabetical order. |
| III. Adding and subtracting the position of the letters alternatively | VI. Interchanging the position of the letters. |
| | VII. Constant adding and reversing the letters to form another word. |
| | VIII. There are 4 types of questions asked in exams: |


Type 1: Alphabet coding deductive or letter coding

1. In a certain code language, 'management' is coded as 'tnmeganam', how is 'quality' written in the same code language?

- A. Tyluiq B. Ytilauq
C. Uqlatyi D. Auqilty

Solution

All the alphabets used in the code are reversed. Therefore, according to the same code language 'quality' will be coded as 'ytilauq'.

Correct answer: B

2. In a certain code language, 'secure' is coded as 'eruces', how is 'liability' written in the same code language?

- A. libaytili B. ytliibail
C. ytilibail D. lytiaailb

Solution

All the alphabets used in the code are reversed. Therefore, according to the same code language 'liability' will be coded as 'ytilibail'.

Correct answer: C

Type 2: Number coding deductive

1. In a certain code language, 'advance' is coded as 4324169 and 'round' is coded as 80513, how is 'needed' written in the same code language?

- A. 133933 B. 193239
C. 199393 D. 105139

Solution

Advance – 4324169

Round – 80513

According to the table above, 'needed' will be coded as 199393.

Correct answer: C

2. In a certain code language, 'bicycle' is coded as 293253125, how is 'scooter' written in the same code language?

- A. 183151520617 B. 193151520518
C. 204161621715 D. 184151521517

Solution

A	B	C	D	E	F	G	H	I	J	K	L	M
1	2	3	4	5	6	7	8	9	10	11	12	13
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
14	15	16	17	18	19	20	21	22	23	24	25	26

According to the table above the value under the alphabets are their codes. Therefore, the code of 'scooter' on the basis of the table will be 193151520518.

Correct answer: B

Type 3: Mixed letter coding deductive/ deciphering messages

1. If 'cpt way lin' stands for 'happy and sad'; 'my fin kil' stands for 'you are good' and 'sue fin le dim' stands for 'they are not friends,' what would 'are' stand for?

- A. kil B. fin
C. dim D. my

Solution

In the 2nd and the 3rd statement 'you are good' and 'they are not friends,' 'are' is common and in their codes 'my fin kil' and 'sue fin le dim' 'fin' is common. Therefore, the code for 'are' is 'fin.'

Correct answer: B

2. In a certain language:

'248' stands for 'he is dead'

'381' stands for 'dead or alive'

'563' stands for 'sea or water'

Which digit stands for 'alive'?

- A. 4 B. 1
C. 8 D. 3

Solution

Common word in first and second sentence is 'dead' and common code is '8.' therefore code for 'dead' is '8.' common word in second and third sentence is 'or' and common code is '3.' therefore, code for 'or' is '3.' so, in the second sentence only word 'alive' is left and code '1' is left. Thus code for 'alive' is '1.'

Correct answer: B


Type 4: Coding by substitution

1. If 'brown' is 'red', 'red' is 'pink', 'pink' is 'jam', 'jam' is 'butter', 'butter' is 'blue', and 'sky' is 'milk', then what is the colour of the 'blood'?

- A. Red B. Blue
C. Brown D. Pink

Solution

The colour of blood is red, and as given above in question, red is pink. Therefore, the colour of the blood is pink.

Correct answer: D

Solved Examples:

1. In a certain code language if the word 'import' is coded as 'kpucvg', then what is coded as 'Mischief'?

- A. kfnvwnm B. olxysvvy
C. olxirvwy D. kfnwvwnm
E. klmpsrn

Solution

Word: Import

Pattern: +2 +3 +5 +7 +11 +13

Code: kpucvg, similarly

M	I	S	C	H	I	E	F
2	3	5	7	11	13	17	19
k	f	n	v	w	v	n	m

Correct answer: A

2. In a certain code language, if the word 'minute' is coded as 'nmwkso', then what is the code for the word 'reign'?

- A. sipvm B. slrvn
C. sirtn D. slrwn
E. sirwn

Solution

Word : Minute

Pattern : +1 +4 +9 +16 +25 +36

Code : nmwkso

Similarly, the code for reign is sirwn

Correct answer: E

3. In a certain code language, if the word 'materials' is coded as 'dszlstmbj', then how is the word 'reasoning' coded in that language?

- A. rzdqphoj B. pfbtpojoh
C. hojopqdjr D. rzdqpojoj
E. rzdppojoh

2. If 'animals' are called 'humans', 'humans' are called 'birds', 'birds' are called 'fishes', and 'fishes' are called 'fruits', then who lives in water?

- A. Fishes B. Animals
C. Birds D. Fruits

Solution

Fishes lives in water, and it is given in the question that fishes are fruits. Therefore fruits live in water.

Correct answer: D

Solution

Word: materials

Logic1: -1 -1 -1 -1 +1 +1 +1 +1

dszlstmbj

Logic2: Reverse the order of first four and last four

Letters separately and leave the middle letter as it is.

Code: d s z l s t m b j

In the same way we will get the code for reasoning As

rzdqphoj

Correct answer: A

4. In a certain code language, if bug = 90 and alms = 180, then cadet =?

- A.153 B.165
C.175 D.148
E.185

Solution

Bug = 2 + 21 + 7 = 30 and $30 \times 3 = 90$

In this the sum of the place values is multiplied with the Number of letters in the word.

Alms = 1 + 12 + 13 + 19 = 45 and $45 \times 4 = 180$

Similarly,

Cadet = 3 + 1 + 4 + 5 + 20 = 33 and $33 \times 5 = 165$.

Correct answer: B

5. In a certain code language, if 'violet' is called as 'green', 'green' is called as 'red', 'red' is called as 'brown', 'brown' is called as 'orange', 'orange' is called as 'yellow', 'yellow' is called as 'blue' and 'blue' is called as 'indigo', then what is the colour of human blood in that language?

- A. Red B. Blue
C. Green D. Violet E. Brown


Solution

Human blood is red in colour and red is called brown in that language.

Correct answer: E

6. In a certain code language, if each letter in the English alphabet, with an odd numbered value is given a code of 2 and each of the remaining letters is coded as 1, then what is the code for the word 'salvation'?

- A. 211221121 B. 211121212
 C. 221112122 D. 221121221
 E. 222111222

Solution

The code for odd letters is 2, i.e., for a, c, e, g, i, k, m, o, l, s, u, w, y = 2

The code for even letters is 1, i.e., for b, d, f, h, j, l, n, o, h, t, v, x, z = 1

The code for salvation is 221121221.

Correct answer: D
Directions (7 – 10):

In a certain code language, some statements are Coded as follows:

'director makes movies short' is coded as '%p4 @jw5 @l4 *df7'

'story has meaning cancel' is coded as '^b2 !do5 @o6 %p4'

'match creates history height' is coded as '!b6 ^u6 @u4 ^hj5'

'direction changes life lesson' is called as 'lo6 *d8 \$gj3 \$tt5'

7. Which of the following can be coded as '@ls5 *bu7 \$eo5'?

- A. Lean market dimension B. Local maker duty
 C. London market distance
 D. Location mistake delete
 E. Lessen minimum drive

Solution

- The first letter of each word is coded as per the symbols given in the below table.

d	m	c	h	s	l
*	@	!	^	%	\$

- The number at the end = (number of letters in the word – 1)
 e.g., makes =
 first character = m → ∴ symbol = @
 no of letters = 5 → ∴ the number at the end = 4
- The middle element(s) of the code:
 - For words containing odd number of letters:

- Take the next letter of the middle alphabet
- e.g., makes
 middle alphabet = k → next alphabet = l

- For words containing even number of letters:

- Swap the two middle alphabets and take the next consequent alphabet.
- e.g., movies
 middle alphabets = vi
 after swap = iv → Next alphabets = jw

∴ code for 'makes' = '@l4', 'movies' = '@jw5'

∴ The words 'london market distances' are coded as '@ls5 *bu7 \$eo5'.

Correct answer: C

8. What can be the code for 'cooking dinner time'?

- A. !l6 *oo5 ?nj3 B. !l5 *on5 ?jn4
 C. !l6 *oo5 >nj4 D. !l6 *nn5 >nj3
 E. !l6 *oo6 ?nj3

Solution

'cooking dinner time' can be coded as '!l6 *oo5 ?nj3'.

Here 't' is coded as '?' as it is the new letter.

Correct answer: A

9. If 'delete huge bite' is coded as '*fm5 ^hv3 ;uj3', then how can 'bigger mountain place' be coded?

- A. Jhh7 @uo7 *b4 B. @uo7 ;hh5 <b4
 C. >b4 ;hh5 @uo7 D. @hh7 !b4 ^uo8
 E. Either (b) or (c)

Solution

From the statement 'delete huge bite' we can say the symbol 'j' is for the word which starts with 'b'. The word 'place' gets a new symbol. Hence, either (2) or (3) can be used to get the code.

Correct answer: E

10. Which of the following options cannot be coded as 'hyper text markup language'?

- A. ^q4 <yf3 @ls5 \$vh7 B. >yf3 @ls5 ^q4 \$vh7
 C. @ls5 ^q4 !yf3 \$vh7 D. *yf3 @ls5 ^q4 \$vh7
 E. More than one of the above

Solution

The symbol for 't' cannot be determined. It has to be a new symbol. Option C has no new code. Hence, it cannot be used to get the code.

Correct answer: C


Exercise – 1

1. If the word 'ambassador' is written as 'codcuucfqt', then 'diplomat' can be written as
 A. hkrnqpcv B. glpnqpcv
 C. fkqmqobv D. ekqmqobv
 E. fkrnqocv
2. In a certain code 'fabrication' is written as 'noitacirbaf' how would 'teleport' be written?
 A. tropeelt B. rotpelet
 C. tropelet D. trpoleet
 E. None of these
3. If a = 26, fun = 40, then soon = ?
 A. 47 B. 45
 C. 44 D. 46
 E. 42
4. If a = 2, m = 26, z = 52, then same = ?
 A. 77 B. 75
 C. 74 D. 76
 E. 72
5. If in a code language "organisation" is written as "cbdwlqjwyqcl" and "operation" is written as "cxfbwyqcl". How is "separation" coded?
 A. jfxwbwycql B. lcqybwwjfx
 C. jfwxwbyqlc D. jfxwbwyqcl
 E. fxjbclyqw
6. If 'combat' is coded as 5 and 'movement' as 7, then what is the code for 'grapefruit'?
 A. 9 B. 8
 C. 10 D. 7
 E. 11
7. If 'fame' can be coded as 13, 3, 27, 11 then 'boil' will be coded as?
 A. 5, 31, 17, 27 B. 11, 21, 17, 27
 C. 3, 23, 19, 29 D. 7, 25, 21, 31
 E. 5, 31, 19, 25
8. If 'light' is called 'morning', 'morning' is called 'dark', 'dark' is called 'night', 'night' is called 'sunshine', and 'sunshine' is called 'dusk', when do we wake up ?
 A. morning B. dark
 C. dusk D. sunshine
 E. night
9. If 'orange' is called 'butter', 'butter' is called 'soap', 'soap' is called 'ink', 'ink' is called 'honey' and 'honey' is called 'orange', which of the following is used for writing?
 A. soap B. orange
 C. honey D. butter
 E. ink
10. If 'sky' is 'star', 'star' is 'cloud', 'cloud' is 'earth', 'earth' is 'tree', and 'tree' is 'book', then what is used to make papers?
 A. Earth B. Star
 C. Tree D. Book
 E. Cloud
11. If 'dust' is called 'air', 'air' is called 'fire', 'fire' is called 'water', 'water' is called 'colour', 'colour' is called 'rain', and 'rain' is called 'dust', then where do fish live?
 A. Colour B. Air
 C. Water D. Fire
 E. Dust
12. If 'books' is called 'watch', 'watch' is called 'bag', 'bag' is called 'dictionary' and 'dictionary' is called 'window', what is used to check the time?
 A. books B. window
 C. watch D. dictionary
 E. bag
13. If 'cook' is called 'butler', 'butler' is called 'manager', 'manager' is called 'teacher', 'teacher' is called 'clerk' and 'clerk' is called 'principal', then who is employed in an office to keep records?
 A. principal B. butler
 C. manager D. clerk
 E. teacher
14. If 'black' means 'pink', 'pink' means 'blue', 'blue' means 'white', 'white' means 'yellow', 'yellow' means 'red' and 'red' means 'brown', then what is the colour of blood?
 A. Red B. Brown
 C. Blue D. White
 E. Yellow
15. If 'oranges' are 'apples', 'bananas' are 'apricots', 'apples' are 'chillies', 'apricots' are 'oranges' and 'chillies' are 'bananas', then which of the following are yellow in colour?
 A. Chillies B. Apples
 C. Apricots D. Bananas
 E. Oranges



16. If 'pen' is 'table', 'table' is 'fan', 'fan' is 'chair' and 'chair' is 'roof', on which of the following will a person sit?
- A. Pen B. Chair
C. Fan D. Roof
E. Table
17. If 'rat' is called 'dog', 'dog' is called 'mongoose', 'mongoose' is called 'lion', 'lion' is called 'snake', and 'snake' is called 'elephant', then who is the king of jungle?
- A. Lion B. Mongoose
C. Dog D. Elephant
E. Snake
18. If 'air' is called 'green', 'green' is called 'blue', 'blue' is called 'sky', 'sky' is called 'yellow', 'yellow' is called 'water' and 'water' is called 'pink', then what is the colour of grass?
- A. Blue B. Yellow
C. Sky D. Water
E. Green
19. If train is called 'bus', 'bus' is called 'tractor', 'tractor' is called 'car', 'car' is called 'scooter', 'scooter' is called 'bicycle', 'bicycle' is called 'moped', then what is used in agriculture?
- A. Bicycle B. Car
C. Moped D. Tractor
E. Scooter
20. In a certain code language, "blue" means "car", "car" means "wood", "wood" means "rice", "rice" means "chair" and "chair" means "table". What is used to make furniture?
- A. Chair B. Table
C. Rice D. Wood
E. Car
21. In a certain code language, "pen" means "paper", "paper" means "yellow", "yellow" means "blanket", "blanket" means "shirt" and "shirt" means "pencil". Where do we write?
- A. Paper B. Blanket
C. Pencil D. Yellow
E. Shirt
22. In a certain code 'black' means orange, 'orange' means violet, 'violet' means 'green', 'green' means 'white', 'white', means 'yellow' and 'yellow' means 'sky blue', what is the colour of teeth ?

- A. Violet B. Orange
C. White D. Sky blue
E. Yellow

Directions (23 – 25):

In each of the following questions given below, a word is given followed by four combinations of symbols and digits labelled a, b, c and d. You have to find out which of the following four combinations correctly represents the word based on the alphabet codes and the conditions given below. If none of the combinations matches, choose 'None of these' as your answer.

Element	\$	7	@	6	8	4	1	<
Code	B	J	Q	V	T	A	D	N

Element	%	+	2	9	3	&	5	x
Code	W	L	U	P	C	Y	K	F

Element	#
Code	R

Condition 1:

If first element is a number and last element is a symbol, then the code of first and last element will be interchanged.

Condition 2:

If first element is a symbol and last element is a number, then both elements will be coded as the code of symbol.

Condition 3:

If third element is an even number and sixth element is a symbol, then both will be coded as 'E'.

Condition 4:

If an element is appearing twice in the code, then the code of that element will not be written.

Note: If more than one condition is applicable then they are to be applied in increasing order of their condition number.

23. Find the code of '4\$186<#x'.

- A. AQDVTNFB B. BQTDNVFA
C. AQVDTNFB D. FBDTVNRA
E. None of these

24. Find the code of '<48#3&9'.

- A. NCTRKEP B. NAERCEN
C. NCERKYP D. NCEKREN
E. None of these

25. Find the code of '5x6\$4<4@'.

- A. KFEBEQ B. QFEABAEK
C. QFEEBK D. QFEBEK
E. None of these



26. In a certain code, 'ready' is written as 'XCZDQ'. How is 'tiger' written in that code?

A. QDFHS B. PFJHF
 C. RDFGS D. QDFHT
 E. Cannot be determined.

27. In a certain code language,

(a) 'pit na som' means 'bring me water'
 (b) 'na jo tod' means 'water is life'
 (c) 'tub od pit' means 'give me toy'
 (d) 'jo lin kot' means 'life and death'

Which of the following represents 'is' in that language?

A. pit B. tub
 C. na D. jo
 E. tod

28. If in a code language, 'eager' is written as DZFDQ and 'jumble' is written as ITLAKD, how will 'camping' be written in that code?

A. ACNMPHF B. BZLOHFM
 C. BBMPHMF D. BZLOHMF
 E. None of these

29. In a certain code language,

'3a#, 2b\$, 7c@' means 'truth is eternal';
 '7c@, 9a#, 8b\$, 3a#' means 'enmity is not eternal'
 '9a#, 4d@, 2b\$, 8t&' means 'truth does not perish'.
 Which of the following means 'enmity' in that language?

A. 8b\$ B. 3a#
 C. 9a# D. 7c@
 E. Cannot be determined.

30. If 'pour' is written as '#15t', 'sware' is written as '78yt9', 'clear' is written as '3@9yt'. Then what is the code for 'pearl'?

A. 3t@78 B. #9ty#
 C. #9yt@ D. 7@ty#
 E. Cannot be determined.

31. According to a military code, 'PRAYER' is 'ARPREY' and 'NEARER' is 'AENRER'. What is the code for 'ATTRACTION'?

A. ARTTAOINTC B. RATTANOITC
 C. ARTATNOCIT D. ARTATNOITC
 E. None of these

32. If 'DELHI' can be written as 'EFMIJ', how can 'MUMBAI' be written in that code?

A. LUNCBJ B. NVNCBJ

C. LVLCBJ

D. NUNBCI

E. None of these

33. In a certain code language,

(a) 'qit gar la' means 'you are good'
 (b) 'gar sok qa' means 'good and bad'
 (c) 'sim la sok' means 'they are bad'

In that language, which word stands for 'they'?

A. sim B. sok
 C. la D. None of these
 E. Cannot be determined.

34. If 'cat' is coded as 'ecv' then what will 'run' be coded as?

A. svp B. two
 C. swo D. tvp
 E. twp

35. In a certain coding language, if for = 42 & he = 41 then many will be equal to ?

A. 67 B. 63
 C. 55 D. 48
 E. 52

Directions (36-40):

In each of the following below is given a group of letters followed by three combinations of letters/symbols. You have to find out which of the combinations correctly represents the group of letters based on the following coding system and mark the number of that combination as the answer. If none of the given combinations correctly represents the group of letters, mark (e. , i.e. 'none of these', as the answer

Letter / Number	G	A	1	Z	P	T
Code	*	@	!	&	^	\$

Letter / Number	5	4	C	F	U	7
Code	+	{	?	=	>	}

Letter / Number	0	3
Code	<	/

Condition(1):

if more than two vowels are in the group, then code of all the vowels will be \$.

Condition(2):

if second element is even digit, then code of the first element



will be same as the code of last element.

Condition(3):

if only one consonant is in the group, then code of the consonant will be same as the code of second last element.

More than one condition can be applied on a group of letters.

36. What would be the code of the element 'GAP53'?

- A. &@^}= B. *@^+/
 C. &@<{/ D. \$@^+/
 E. None of these

37. What would be the code of the element '14C03'?

- A. !}?</ B. /}?</
 C. /{?</ D. / {<</
 E. None of these

38. What would be the code of the element 'GAAPF3'?

- A. *\$=\$/ B. *@\$=\$
 C. * \$\$=/ D. *@=\$/
 E. None of these

39. What would be the code of the element '0FPPF4'?

- A. *\$<=+ B. *<=>+
 C. *<^=+ D. *<}=+
 E. None of these

40. What would be the code of the element 'C470G'?

- A. *{}<* B. *{}^*
 C. *{^^* D. *{<^*
 E. None of these

Directions (41 - 45):

Read the following information carefully and answer the questions given beside.

In a coded language,

'scissors cut knot outside' is coded as 'hq xe pp lk' 'dangerous worry going away' is coded as 'wq dt tk zy' 'water increases above level' is coded as 'dv ru zq ox' 'blood goes into vessel' is coded as 'yq tq rp eu'. Find the codes on the basis of above coding system.

41. Find the code for "calibration"?

- A. vj B. xl
 C. xk D. yk
 E. None of these

42. Find the code for "bread butter"?

- A. zh yu B. cf dx
 C. xg xv D. yg yv
 E. None of these

43. Code 'sq' stands for which of the following?

- A. hope B. hook
 C. honour D. Both A and C
 E. All of the above

44. Find the code for "cunning model"?

- A. xf nk B. xk nf
 C. xk mf D. xf no
 E. None of these

45. Find the code for 'law swing'?

- A. on hk B. om bp
 C. om ik D. on hb
 E. None of these

Directions: (46-50)

Study the following information carefully and answer the questions given beside:

In a certain code language, 'bank laundering money deposit' is written as '14#p 15@b 9%b 15\$f'

'financial institution registered always' is written as '39%f 24#m 14%j 20&o'

'greater interest higher amount' is written as '15#j 23\$o 36\$n 1\$s'

'reserved credit examine daily' is written as '9#s 9#b 23\$f 13%y'

46. What is the code of the 'dodge high spends'?

- A. 5@s 2@s 4#p B. 4#r 7%m 19@q
 C. 8#q 13%n 9#p D. 4#p 16@j 19@q
 E. None of these

47. '15#j 24#f' is the code of which of the following?

- A. large balance B. credit card
 C. higher reward D. debit card
 E. None of these

48. '15#i' is the code of which of the following words?

- A. chance B. church
 C. choice D. Both a and c
 E. All of these

49. What is the code of the 'responsible customer'?

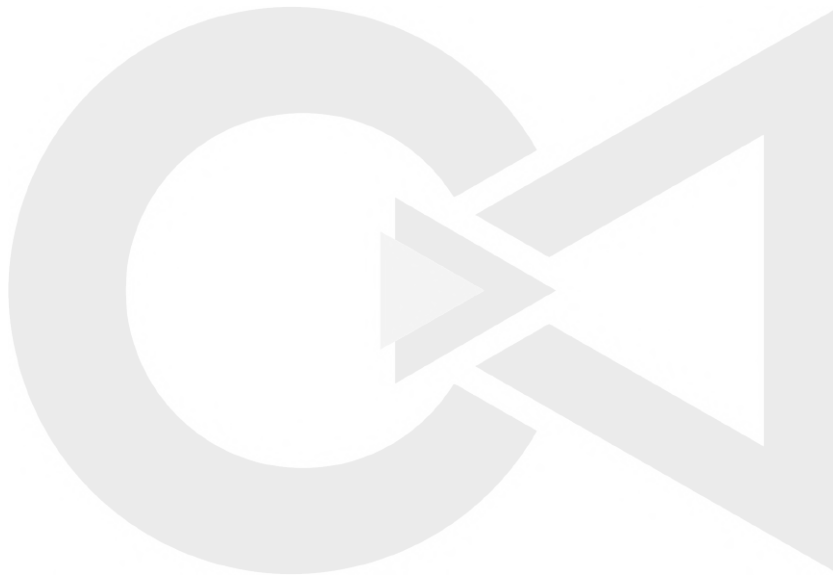
- A. 20%f 35#v B. 35%f 1 4\$t
 C. 14%f 35\$v D. 14%b 15\$v
 E. None of these

50. What is the code of the 'collateral'?

- A. 20\$r B. 22&q
 C. 15%p D. 21%p
 E. None of these

**ANSWER KEY:**

1) E	11) A	21) D	31) E	41) C
2) C	12) E	22) E	32) B	42) D
3) B	13) A	23) D	33) A	43) E
4) D	14) B	24) B	34) E	44) B
5) D	15) C	25) D	35) C	45) A
6) A	16) D	26) A	36) B	46) D
7) E	17) E	27) E	37) D	47) C
8) B	18) A	28) D	38) C	48) A
9) C	19) B	29) A	39) E	49) C
10) D	20) C	30) C	40) A	50) D





ALPHA NUMERIC SERIES

Exercise – 1

Directions (1 – 5):

The following questions are based on the given sequence of words:

INE BED EAR SON AIR

1. If all the consonants of each word are changed to their next letter according to the English alphabetical series, then how many new such words will be formed that have exactly two vowels?
 A. Two B. Three
 C. None D. One
 E. Four
2. How many letters are between second letter of first word from right end and second letter of second word from left end in English alphabetical series?
 A. Four B. Three
 C. More than four D. One
 E. None of these
3. How many meaningful words can be formed (using each letter once. From last letters of first, second, third and fourth word from the left end)?
 A. Two B. Three
 C. Four D. One
 E. None
4. If all the letters in each word are arranged in alphabetical order within the word, then how many such words are there which will remain unchanged?
 A. More than three B. Three
 C. Two D. One
 E. None
5. If 'F' is added to left of the word which starts with a vowel and 'G' is added to the right of the word which starts with a consonant then how many meaningful words can be formed?
 A. Two B. One
 C. More than three D. Three
 E. None

Directions (6 – 10):

Study the following arrangement carefully and answer the following questions given below:

YX7/A4+3CE%OR5UG@K9V×5ZSI8\$B4?

6. Four of the following five are alike in a certain way and hence form a group. Which of the following is the one that does not belong to the group?
 A. A + C B. % R G
 C. 9 × Z D. 8 B ?
 E. X / 4
7. How many symbols are there between the first perfect square from left end and first perfect cube from the right end?
 A. Three B. Two
 C. One D. None
 E. More than three
8. How many such vowels are there in the given sequence which have a symbol immediate right or left to them?
 A. Three B. Two
 C. None D. One
 E. Four
9. If all the consonants and the symbols are dropped from the given sequence then which of the following elements will be 9th from the left end?
 A. 5 B. 9
 C. I D. U
 E. 5
10. How many vowels are between first even number from the left end and first odd number from the right end?
 A. Two B. Three
 C. One D. More than three
 E. None

**Directions (11 – 15):**

Study the following information carefully and answer the questions given beside:

J3P%68OIK7?2!M8S&4U2+5A9O/18CE95

11. Four of the following five are alike in a certain way and hence form a group. Which of the following is the one that does not belong to the group?
 A. K 9 7 B. % C 6
 C. 6 8 8 D. O / 8
 E. J 5 3
12. If all the perfect squares and the symbols are dropped from the given sequence then which of the following elements will be 3rd to the left of 9th from the right end?
 A. Y B. 2
 C. M D. S
 E. None of these
13. If a meaningful word is to be formed using the 3rd, 9th, 16th, 23rd and 30th letters while moving from left to right, how many meaningful words thus can be formed? (Each letter to be used once only)
 A. Two B. Three
 C. One D. More than three
 E. None
14. How many such perfect squares and perfect cubes are there in the sequence which are either preceded or followed by a symbol?
 A. Three B. Five
 C. One D. Two
 E. Four
15. How many vowels are there in between the left of second prime number from right end and the right of second symbol from left end?
 A. Three B. One
 C. Two D. None
 E. Four
16. _tu _ kt _ s _ _ usktu _
 A. ksutkk B. ksukts
 C. ktusku D. ksuktk
 E. None of these
17. bc _ b _ c _ b _ ccb
 A. b b c b B. c b b c
 C. c b c b D. b c b c
 E. None of these

Directions (18 – 22):

Study the following numeric arrangement and answer the questions given beside.

67672521397538323418379242623851426

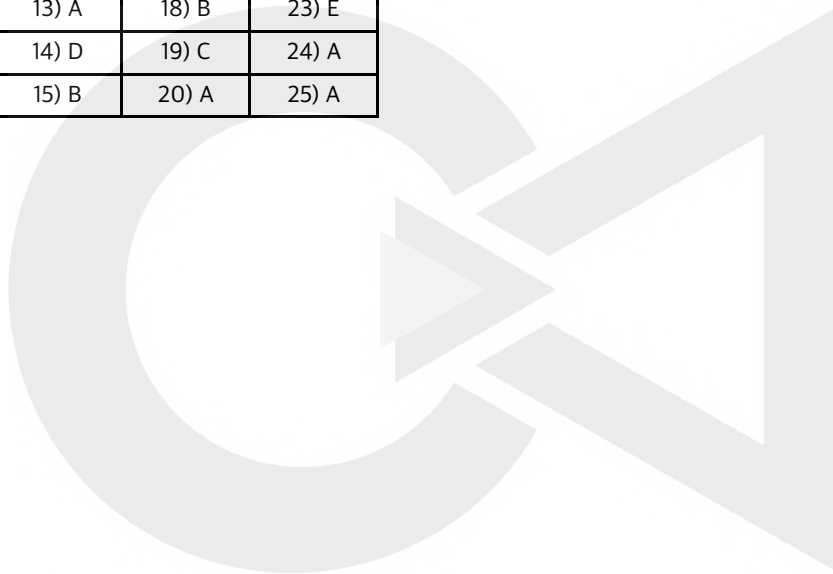
18. Which of the following is sixth to the right of the twenty first digit from the right end of the above arrangement?
 A. 7 B. 3
 C. 4 D. 1
 E. 8
19. How many 2's are there in the given arrangement each of which is immediately followed by an odd number?
 A. Three B. One
 C. Four D. Two
 E. More than four
20. If first 20 digits of the arrangement are reversed, which digit will be the seventeenth element from the right end?
 A. 7 B. 9
 C. 6 D. 2
 E. 5
21. How many 3's are there in the arrangement each of which is immediately preceded as well as followed by an odd number?
 A. Two B. One
 C. Four D. Three
 E. None of these
22. If all the even digits are deleted from the arrangement, which of the following will be the eleventh from the left end of the arrangement?
 A. 9 B. 7
 C. 1 D. 3
 E. 5
23. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.
 CU24, GV29, MF19, XO?
 A. 37 B. 40
 C. 35 D. 38
 E. None of these
24. A series is given with one term missing. Select the correct alternative from the given ones that will complete the series.
 EJ27, KP64, QV125, ?



- A. WB216 B. XD216
C. VC216 D. WB264
E. VC264
25. What comes next in the series...
1A2, 3C4, 7G8, __
- A. 15O16 B. 14O15
C. 16P17 D. 13P14
E. None of these

ANSWER KEY:

1) E	6) B	11) D	16) B	21) B
2) B	7) E	12) C	17) C	22) D
3) A	8) A	13) A	18) B	23) E
4) D	9) B	14) D	19) C	24) A
5) C	10) B	15) B	20) A	25) A





LR DATA SUFFICIENCY

Exercise – 1:

Directions (1 – 40):

- A. If data in the statement I alone is sufficient to answer the question.
- B. If data in the statement II alone is sufficient to answer the question.
- C. If data either in the statement I alone or statement II alone are sufficient to answer the question.
- D. If data given in both I & II together are not sufficient to answer the question.
- E. If data in both statements, I & II together are necessary to answer the question.

1. Who is the tallest among A, B, C, D and E?
 - I. C is taller than only two people.
 - II. B is shorter than E but not the shortest.
2. What is the distance between point M and N.
 - I. Point R is 10 m west of point M and point S is 10 m north of point M.
 - II. Point N is 10 m south-east of point V. Point S is 20 m north-west of point N.
3. How is Harsh related to Diksha?
 - I. Diksha is the only sister of Harsh.
 - II. Hema is the mother of Harsh.
4. What is Monica's position from the top?
 - I. Jash is 15th from the bottom.
 - II. There are only three people between Monica and Jash.
5. Who sits at the centre of the row ?
 - I. B sits third from the extreme right end and to the immediate right of A.
 - II. Five people sit in a row facing north.
6. In which month is Neha's birthday?
 - I. Shikha remembers that Neha's birthday was 4 months ago.
 - II. Raj remembers that after 2 months from now, Neha's birthday will be 6 months back.
7. A is facing which direction?
 - I. S is facing east and if she turns to her right, she will face R.

- II. A is facing the opposite direction as that of K who is facing S.
8. On which floor does Shikha reside?
 - I. In a six-storey building (Ground floor is parking space), Rekha is on the fourth floor. Shikha likes to reside only on even numbered floors.
 - II. Reema is not on the topmost floor. Reema is two floors below Peter who is 3 floors above Shikha.
9. Who has secured least marks among P, Q, R, S & T?
 - I. S has secured less marks than only R and T.
 - II. Q has secured more marks than P.
10. How is 'face' written in that code language?
 - I. In a certain code language, 'no one with face' is coded as 'fo to om sop' and 'no one has face' is coded as 'om sit fo sop'.
 - II. In a certain code language, 'face of no light' is coded as 'om mot fo kiz' and 'no one is smart' is coded as 'sop fo sip lik'.
11. How is PRODUCT written in that code language?
 - I. In a certain code language, AIEEE is written as BJFFF.
 - II. In a certain code language, GYPSY is written as FXORX.
12. How is Shubham related to Shivani?
 - I. Shubham is the brother of Meenal.
 - II. Shivani is niece of Pooja. Neeraj is Meenal's uncle and Preeti's brother.
13. A, B, X, Y and Z are sitting around a circular table with all of them facing towards the centre. Who sits to the immediate left of B?
 - I. A sits third to right of B.
 - II. X sits third to right of A. B sits immediately to the left of X who sits second to left of A. Y does not sit adjacent to B.
14. What is the floor number of P in the 5-storey apartment?
 - I. A's floor, which is adjacent to P, is exactly below E's floor which is the fifth floor.



- II. P's floor is exactly above F's floor, whose floor is exactly above B's floor which is first.
15. On which day M goes to the US?
- I. According to M's sister M goes to the US after Tuesday and before Sunday but she did not go to the US on Thursday.
- II. According to M's father M goes to the US after Monday and before Saturday.
16. There are four different birds in a jungle – Kingfisher, Sparrow, Pigeon and Crow. They sit on different trees namely – Neem, Mango, Palm and Banyan but not necessarily in the same order. Kingfisher sits on Neem tree and Crow sits neither on Banyan tree nor on Mango tree. Who is sitting on the Banyan tree?
- I. Sparrows do not sit on Banyan trees.
- II. Pigeons neither sit on palm nor on Mango.
17. Which direction is D facing?
- I. If R, who is currently facing North-East, turns 90° clockwise, he would face the same direction as D.
- II. If V, who is currently facing North-West, turns 135° anticlockwise, he would face the direction 45° clockwise to the direction D is facing.
18. M, N, O, A, B, C are sitting around a circular table facing the centre. Who sits between M and O?
- I. B is to the immediate left of O, who is an immediate neighbour of M. A is an immediate neighbour of N and C.
- II. O is facing C. O is to the immediate right of A.
19. What is R's rank in the class?
- I. R's rank is 24 less than N's rank.
- II. A's rank is 38 more than R's rank. N's rank is 10 less than A's rank.
20. There are seven letters W, M, V, N, Q, R, and K. What is the fifth letter from the left end?
- I. Q is placed fifth to the right of V. W and K are not placed immediately next to either Q or V. Q is placed to the immediate left of R.
- II. M is placed to the immediate left of W but is not an immediate neighbour of Q. N is placed second to the left of R.
21. What is the birth date of P's mother?
- I. P's father remembers that his wife's birthday is after 20^{th} and before 23^{rd} December.
- II. P's brother remembers that his mother's birthday was after 21^{st} but before 25^{th} December.
22. Who is oldest among A, K, J, R, S and T?
- I. R is older than A and J. R is younger than K. S is older than only T.
- II. S is older than J but younger than A. T is older than only R. A is not the oldest.
23. How is 'pant' written in a code language?
- I. 'red pant shirt' is written as 'ke ne que' and 'shirt pant black' is written as 'ke joi ne'.
- II. 'red is play' is written as 'que yo pa' and 'red is pant play' is written as 'ke que pa yo'.
24. There are seven members – M, B, C, D, X, Y and Z in a family such that there are three generations in the family and two married couples. How is D related to B?
- I. D is the grandson of M. Y is the daughter-in-law of C. B is son of C but not married to Y.
- II. Y is father of D and son of C. B is the brother of X who is the daughter of M.
25. Six friends – Tipu, Tanu, Tara, Tina, Teja and Titu are sitting around a circular table facing the centre. How many people are sitting between Tanu and Tina?
- I. Tipu is sitting third to the right of Tanu. Tara is sitting third to the left of Tina. Tara is not sitting adjacent to Tipu.
- II. Tina has Tipu and Titu as his immediate neighbours. Tara is not an immediate neighbour of Tipu or Titu.
26. How many people are there in the row facing north?
- I. P who is tenth from the left end is fifth to the left of Q who is sixteenth from the right end.



- II. R is seventh to the left of S who is eleventh from the right end and nineteenth from the left end.
27. There are six bottles and numbers from 1 to 6 are written on them. These bottles contain different liquids of different colours – Red, Grey, Pink, Blue, Yellow and Orange; which have six different tastes – Salty, Sweet, Sour, Bitter, Tasteless, and Spicy but not necessarily in the same order. Bottle no 4 contains a grey liquid which is sour in taste. Orange liquid is kept in bottle no 5 and the one which is pink in colour and is spicy in taste. Also bottle 1 contains a tasteless liquid. If Shahin doesn't like the bitter taste, which colour liquid she should not drink and in which it is kept?
- I. Red liquid is kept in bottle no. 1. Bottle no 2 contains a liquid of blue colour which tastes salty. The sweet liquid is kept in a bottle which contains a number equal to Addition of the no of bottles that contain red and grey liquids.
- II. Bottle no 6 contains a pink liquid. Bottle no 2 contains a blue liquid. Orange liquid tastes sweet while red does not have any taste. Also yellow is kept in bottle no 3.
28. Eight cars – Swift, Wagon R, Polo, Brezza, Alto, Verna, Amaze and Duster were parked in a straight-line facing north. Which car was parked at the extreme right end of the row?
- I. Duster was parked fourth to the right of Brezza, which was parked immediately to Polo. Swift was parked second to the left of Polo, which was parked third to the left of Verna.
- II. Swift was parked fourth to the left of Brezza and was parked at an extreme end. Polo was parked fourth to the right of Duster, which was not parked immediately to Brezza.
29. Five persons – M, K, R, D, and J, each has a different weight. Who among these persons is the heaviest?
- I. Only two people are heavier than K who is heavier than J and D.
- II. R, who is not the lightest, is heavier than K and D, but not M
30. Four persons – Arnav, Abdul, Afzal and Azam, are sitting in a straight-line facing South then who is/are sitting adjacent to Arnav?
- I. Arnav does not sit next to Azam, who does not sit on the extreme right.
- II. No one sits to the right of Arnav and on the left of Abdul, while only one person sits between Afzal and Abdul.
31. In a straight line of twenty-five persons facing north how many persons are sitting between D and H?
- I. A sits at the extreme left end of the line. Only six people sit between A and H. Only ten persons sit between H and P. Only four people sit between P and D.
- II. M sits exactly in the middle of the line. Only three people sit between R and M. Only six persons sit between R and D. R sits on the left of D. H sits fourth to the left of M
32. In a fair, there are six types of rides viz. Roller Coaster, Ferris wheel, Fast Forward, Mad Bull, Big Beat and Loco Motion which are priced differently. Their prices ranged between Rs. 70 and Rs. 150. What is the price of the ride which is priced second lowest?
- I. Loco Motion was priced 25 rupees higher than Big Beat. Roller Coaster was priced Rs. 110, which was not the highest price, but was higher than the price of Ferris Wheel.
- II. Big Beat was priced at Rs. 80, which is just lower than that of Ferris Wheel, whose price is a multiple of 5. Only two rides were priced below Rs. 100. Big Beat and Mad Bull share the maximum difference of prices. The price of Loco Motion was 10 rupees more than that of Ferris Wheel.
33. Point A is in which direction from Point M?
- I. Point X is 15m south of Point Y. Point A is towards 5m west of Point X, which is 13m south-east of Point M.



- II. Point M is 6m west of Point X. Point Y is 12m east of Point A, which is 8m to the north of Point X.
34. Twelve persons L, M, J, S, V, T, R, Z, B, H, G and Q are sitting in two parallel rows. S, M, T, L, V and J are sitting in row 1 and they are facing south. Z, G, R, Q, H and B are sitting in row 2 and they are facing north. Who sits second to the left of R?
- I. J sits at one of the extreme ends. Two persons sit between J and the one who faces B. M faces the one who sits third to the left of G. J and M are not immediate neighbours. M does not face B. L sits right of M.
- II. Only one person sits between B and G. More than three persons sit between G and the one who faces J. G sits at one of the extreme ends. R and B are immediate neighbours. H faces the one who sits third to the left of L. Three persons sit between Z and H, who does not sit at any of the extreme ends.
35. Six friends namely – A, B, C, S, T and U live in six floored buildings marked 1 to 6 in such a way that lowermost floor is marked as 1 and topmost floor is marked as 6, each person likes different colour namely Green, Red, Black, Yellow, Blue and White not necessary in the same order. C, who lives on an odd numbered floor but not on floor marked 3, lives just above one who likes White. Only two people live between S and one who likes White. T, who likes Blue, neither lives on the adjacent floor of S nor on the adjacent floor of C. One who likes Black lives on the topmost floor. How many people live on the floor above one who likes Yellow?
- I. U, who neither likes Black nor likes White, lives at a gap of two floors from one who likes Red. Only two people live between B and one who likes Green.
- II. B, who lives on the adjacent floor of one who likes Blue, lives at a gap of two floors from one who likes Green. U, who doesn't live on the top floor, lives just above the floor of one who likes Green.
36. Eight friends A, B, C, D, E, F, G, and H are sitting in a row facing north but not necessarily in the same order. Which of the following persons sits third to the right of C?
- I. A sits second to the left of B. Two persons sit between B and H. F sits to the immediate right of E. D sits to the immediate left of H.
- II. G sits fourth to the left of E. B sits second to the right of G. A sits to the immediate right of D. F sits to the immediate left of C.
37. Five students – P, Q, R, S, and T – are sitting in a row facing east. Who is sitting in the middle?
- I. P is sitting to the immediate left of Q. R is sitting to the immediate right of S. T is sitting at one of the ends.
- II. S is sitting second to the left of Q. P is sitting to the immediate right of T. R is sitting at one of the ends.
38. Ten executives – A, B, C, D, E, F, G, H, I, and J – are attending a board meeting. They are seated around a circular table facing the centre. Each executive is either a CEO or a CFO. Can you determine the exact seating arrangement and the positions of the CEO and CFO?
- I. A is seated to the immediate left of the CEO. B is seated to the immediate right of the CFO. G is seated to the immediate left of F. D is seated to the immediate right of C. E is not seated next to A or B.
- II. J is seated to the immediate left of the CEO. H is seated to the immediate right of the CFO. E is seated to the immediate left of D. G is seated to the immediate right of F. C is not seated next to A or B.
39. Eight friends – A, B, C, D, E, F, G, and H – are seated around a circular table. They are engaged in different professions: doctor, engineer, lawyer, professor, architect, accountant, musician, and journalist. Can you determine the exact seating arrangement and the profession of each friend?



- I. A is seated to the immediate left of the musician. B is seated to the immediate right of the lawyer. C is seated to the immediate left of the journalist. D is seated to the immediate right of the architect. E is not seated next to the professor or the accountant.
- II. The engineer is seated to the immediate left of F. G is seated to the immediate right of the doctor. The lawyer is seated to the immediate left of H. C is seated to the immediate right of the professor. D is not seated next to the musician.
40. Five students – Lily, Max, Olivia, Ethan, and Sophia – are competing in a spelling bee contest. Can you determine the order in which they finished?
- I. Lily finished ahead of Max. Olivia finished ahead of Ethan. Sophia finished ahead of Max but behind Lily.
- II. Max finished ahead of Ethan. Olivia finished ahead of Lily. Sophia finished ahead of Max
41. Eight persons namely – P, A, R, S, T, M, V and W are sitting in a circular table facing the centre. Each person likes different fruits namely Banana, Grapes, Guava, Peach, Mango, Apple, Cherry and Orange. R who likes Apple sits third to the left of the one who likes Peach. One person sits between the one who likes Banana and the one who likes Peach. One person sits between the one who likes Banana and T, who sits facing M. The one who likes Grapes neither sits adjacent to M nor adjacent to the one who likes Apple. The one who likes Apple and M don't sit together. The one who likes Grapes sits third to left of S, then who sits second to right of the one who likes Orange?
- I. The one who likes Cherry sits third to the left of V, who sits immediately to the right of the one who likes Mango. The one who likes Guava sits facing V.
- II. W neither likes Banana nor is an immediate neighbour of S. A who likes Mango sits third to right of S. Two people sit between the one who likes Guava and W, who sits immediately to the right of V.
- III. One person sits between A who likes Mango and the one who likes Cherry. The one who likes Guava sits immediately to the left of the one who likes Cherry.
- A. Either I or III B. Only I
C. Only III D. Either II or III
E. All I, II and III
42. Six people namely – P, Q, O, Y, W and U live in six floored buildings marked 1 to 6 in such a way that the lowest floor is marked as 1, floor above is marked as 2 and so on till topmost floor marked as 6. Age of each person is different viz. 32, 42, 48, 52, 54 and 64 years. The one whose age is 54 years sits at floor marked 2 at a gap of two floors from P, whose age is 52 years. Q lives on an odd numbered floor at a gap of two floors from W, whose age is 48 years, then how many people live below the one whose age is 64 years?
- I. O whose age is 32 years lives on an even numbered floor at a gap of two floors from Y. The one whose age is 42 years lives on any floor above Y.
- II. One person lives between the one whose age is 42 years and Y, who lives on an odd numbered floor. O lives on a floor exactly between P and Q.
- III. The one whose age is 32 years lives at a gap of one floor from U, whose age is neither 42 years nor lives on an odd numbered floor.
- A. Either II or III B. Only I
C. Only III D. Either I or III
E. All I, II and III
43. Six cricketers namely – D, C, K, S, R and Z are living in a six floored hotel in such a way that the lowermost floor is marked as 1, floor above it marked as 2 and so on till topmost floor marked as 6. Each person likes different IPL teams viz. CSK, MI, RR, DD, KXI and SRH. All the information is not necessarily in the same order. The one who likes CSK lives on an odd numbered floor at a gap of two floors from S. One



person lives between C and the one who likes DD. R, who likes RR lives on the floor just below S. One person lives between the one who likes RR and KXI, who lives on the adjacent floor of C. The one who likes DD and the one who likes CSK don't live on adjacent floors, then how many people live below the one who likes SRH?

- I. Two people live between the one who likes KXI and D, who neither likes DD nor likes SRH. One person lives between Z and the one who likes KXI.
- II. One person lives between Z and the one who likes KXI, who lives on any floor below C. The one who likes MI and CSK lives on an adjacent floor.
- III. The ones who like KXI and DD live on adjacent floors. Z lives on any floor below the one who likes MI.

- A. Either II or III
- B. Only III
- C. Only II
- D. Either I only or II and III
- E. All I, II and III

44. Seven persons namely – P, O, R, Y, T, W and V are sitting in a row facing south. Each person likes a different colour viz. Red, Grey, Blue, Black, Brown, Yellow and White. All the information is not necessary in the same order. The one who likes Red sits third to right of T, who likes Yellow. The one who likes Brown and P sits together. The one who likes Yellow and the one who likes Grey sits together. The one who likes Grey sits at a gap of two places from the one who likes Brown. W sits immediately to the right of the one who likes Red and neither likes Brown nor Black. P doesn't like Red then who among the following sits immediately left of the one who likes Black?

- I. Three persons sit between O and Y, who sits as the immediate neighbour of the one who likes White. The one who likes White and the one who likes Red doesn't sit together. V and the one who likes Blue sit together.

- II. Two people sit between R and the one who likes Blue. The one who likes Blue sits immediately to the right of V, who doesn't like Brown.
- III. Three people sit between V and the one who likes White. Three people sit between O and Y. The one who likes Blue sits immediately to the right of V.

- A. Either I or III
- B. Only III
- C. Either II or III
- D. Both I and III
- E. None follows

45. Five boxes namely – M, Q, R, Y and T are kept one above other to form a stack. Each box is wrapped with different coloured paper viz. Black, Red, Yellow, Green and Brown. Each box also contains a different article viz. Mobile, Toy, Bat, Bottle and Ball. All the information is not necessarily in the same order. Box R is kept at a gap of two from the box which is wrapped with Red paper. Box which contains the Ball is kept just above the box wrapped with Green Paper. Box Q is wrapped with Yellow paper and is kept just below the box which is wrapped with Red paper. Box T which contains Mobile is kept at bottom. The box wrapped with Green Paper neither contains Mobile nor kept adjacent to box Q, then which of the following box is kept just below the box which contains Bottle?

- I. Box M which contains Bat is kept at a gap of one from the box wrapped with Black paper. Box Y is kept at any place above the box which contains Toy.
- II. One box is kept between the box wrapped with Brown paper and box Y. Box M is kept at any place above box Y and contains Bat.
- III. The box wrapped with Brown paper is kept just below the box which contains Toy. Two boxes are kept between the box which contains Toy and box M.

- A. Either I or III
- B. Only III
- C. Either II or III
- D. Only I
- E. None follows


Directions (46 – 50):

- A. If data in the statement I alone is sufficient to answer the question.
- B. If data in the statement II alone is sufficient to answer the question.
- C. If data either in the statement I alone or statement II alone are sufficient to answer the question.
- D. If data given in both I & II together are not sufficient to answer the question.
- E. If data in both statements I & II together are necessary to answer the question.

46. Five friends – Amy, Brian, Chloe, David, and Emma – are participating in a puzzle-solving competition. Can you determine their final rankings?

- I. Amy finished ahead of Brian. Chloe finished ahead of David. Emma finished ahead of Brian but behind Chloe.
- II. David finished ahead of Brian. Chloe finished ahead of Amy. Emma finished ahead of David.

47. In a row of twelve people facing north, how many people sit between Z and G?

- I. Only two people sit between Z and R. Only one person sits between R and B, who doesn't sit with Z. E sits third to the right of K and neither of them sits adjacent to R or B. At least two people sit between B and G, who neither sits adjacent to E nor Z, who sits at the left end of the row. Only three people sit between E and H, who doesn't sit adjacent to B.
- II. R sits fourth from the left end. Only two people sit between G and E. Only one person sits between Z and R. Only two people sit between H and G, who sit immediately to the left of K. E sits at the end of the row.

48. How many female members are there in a family of ten members?

- I. Q is the son of H, who is the son-in-law of G. K is only daughter of D. L and P are sisters-in-law. G is brother-in-law of F, who is sister of D. M is brother of K. L is married to B. K is mother of P and is mother-in-law

of L. Only three married couples are there in family.

- II. L is the son of Q and is the son-in-law of M. K is only son of D, who is married to G. R is only son of H. G is sister of F. P and R are siblings. L is brother-in-law of R. F and R are unmarried members of the family. H is brother-in-law of K.

49. Seven boxes viz. A, Q, R, Z, T, U and V are kept one above each other. How many boxes are kept below box V?

- I. Box R is kept third from top. Box Z and U are kept together. Box T, which is neither kept adjacent to box U nor box R. Only three boxes are kept between Z and R. Box A, which is not kept adjacent to box Q, is kept at any place above box V.
- II. Only three boxes are kept between box U and A, which is kept second from top. Box Q, which is neither kept adjacent to box A nor box U, is kept just below box R. Only three boxes are kept between box Z and box R.

50. Seven books of different subjects Maths, Literature, Science, Hindi, History, Marathi and Geography having different cover says Red, Green, Blue, Black, White, Yellow and Pink are kept one above other on the shelf then, then how many books are kept between the Yellow covered book and the Science book?

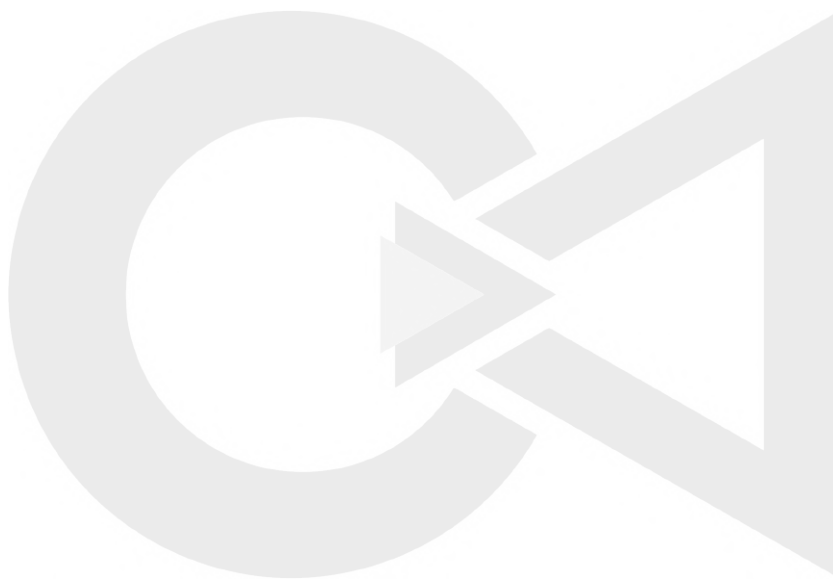
- I. Geography is kept at the bottom having a pink cover. There is a gap of one place between Literature and Hindi, which has a cover of Green colour. Maths is at second position from top. Book having Red cover is kept at the top. Literature having Blue cover is above Hindi. History book is kept just below the maths book.
- II. Science is kept third from bottom just below Literature having Blue cover. The Marathi book is kept on top at a gap of one place from the History book. Science books having Black cover are kept at any place below the Math book. Geography books



having Pink cover are kept at any place
below Hindi books.

ANSWER KEY:

1) D	11) E	21) E	31) B	41) A
2) D	12) D	22) C	32) E	42) B
3) A	13) B	23) B	33) C	43) D
4) D	14) C	24) A	34) B	44) D
5) E	15) D	25) C	35) A	45) D
6) D	16) C	26) C	36) D	46) E
7) E	17) C	27) E	37) D	47) B
8) E	18) A	28) A	38) D	48) A
9) E	19) D	29) E	39) D	49) E
10) E	20) E	30) B	40) E	50) D

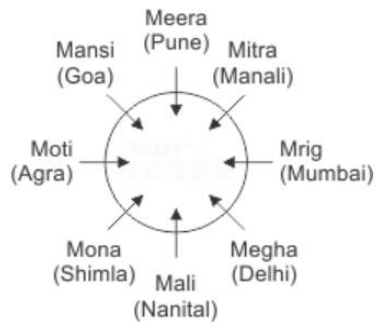




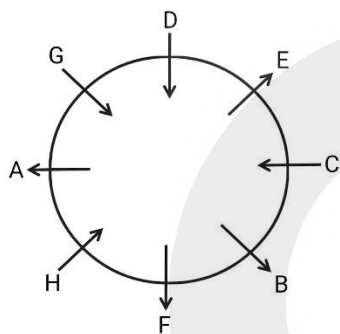
CIRCULAR ARRANGEMENTS SOLUTION

Exercise - 1

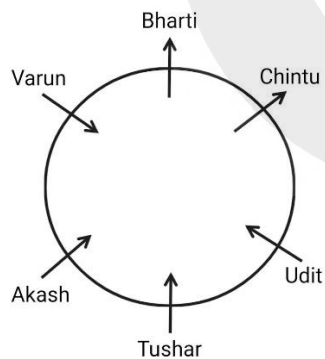
1. Questions 1-5



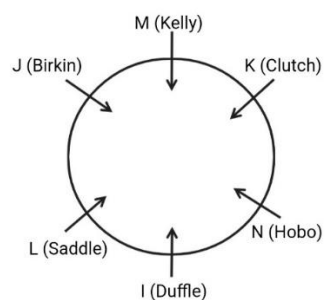
2. Questions 6-10



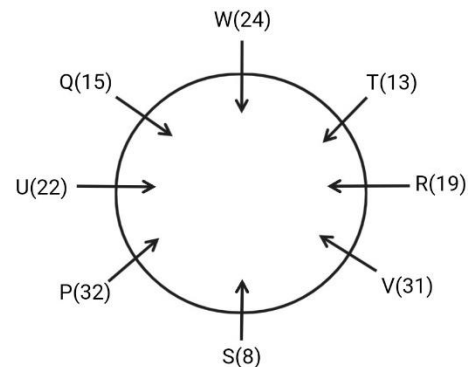
3. Questions 11-15



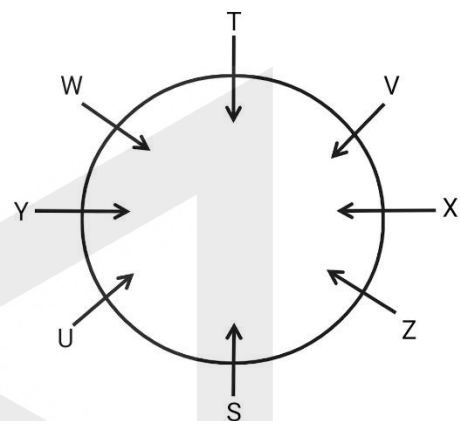
4. Questions 16-20



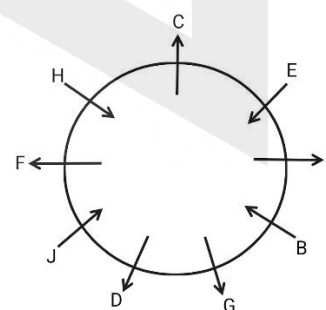
5. Questions 21-25



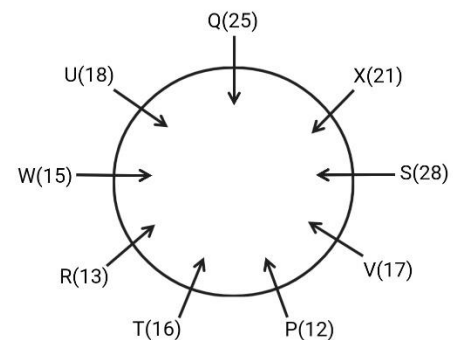
6. Questions 26-30



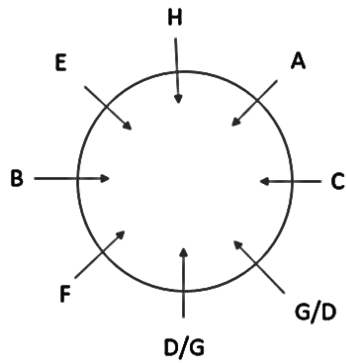
7. Questions 31-35



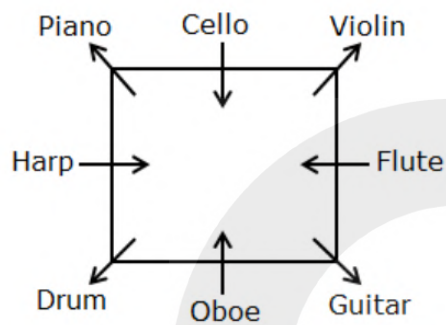
8. Questions 36-40



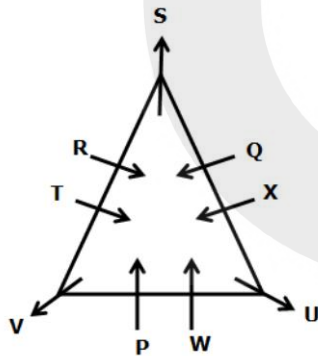
9. Questions 41-45



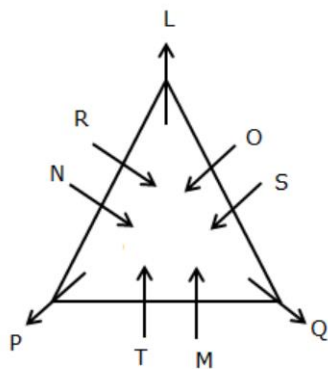
10. Questions 46-50



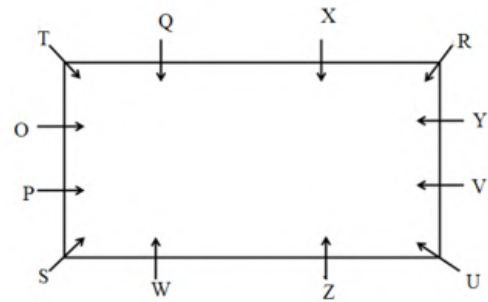
11. Questions 51-55



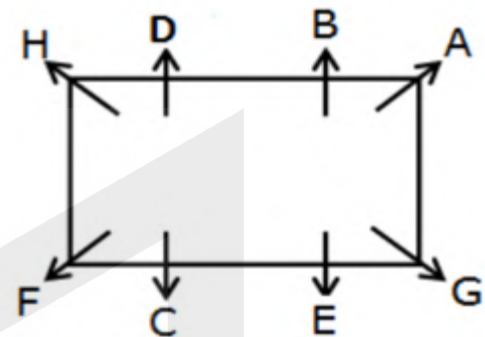
12. Questions 56-60



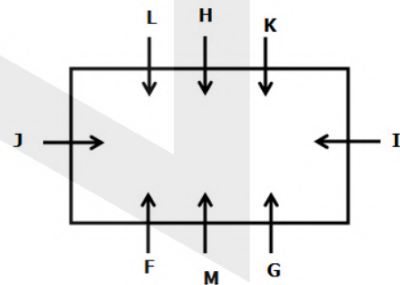
13. Questions 61-65



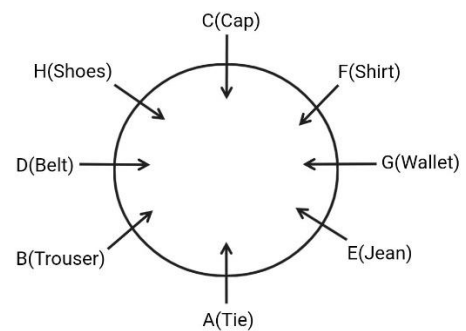
14. Questions 66-70



15. Questions 71-75

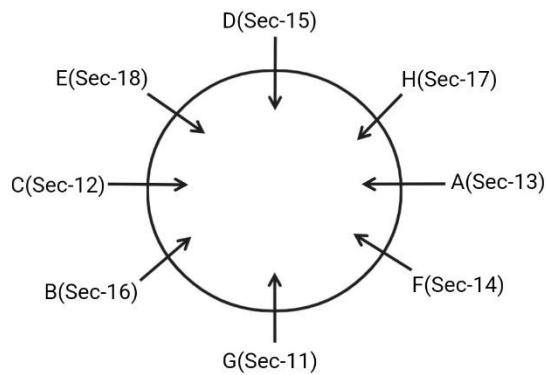


16. Questions 76-80

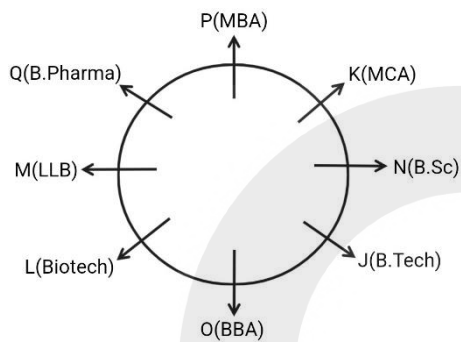




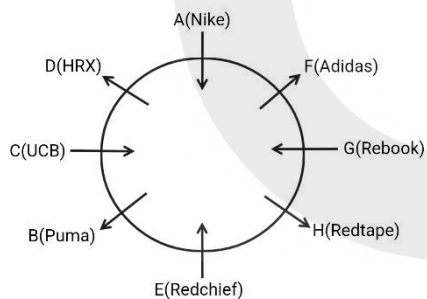
17. Questions 81-85



18. Questions 86-90

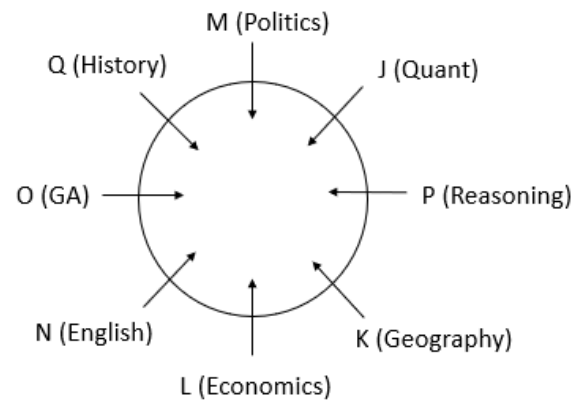


19. Questions 91-95

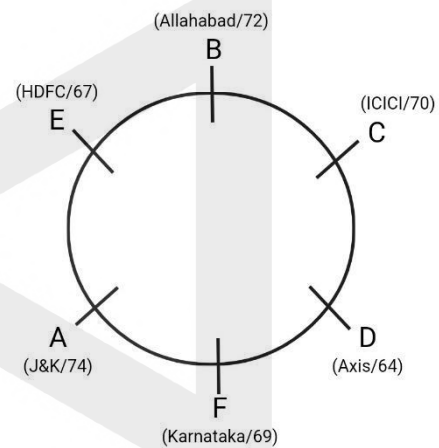


Exercise - 2

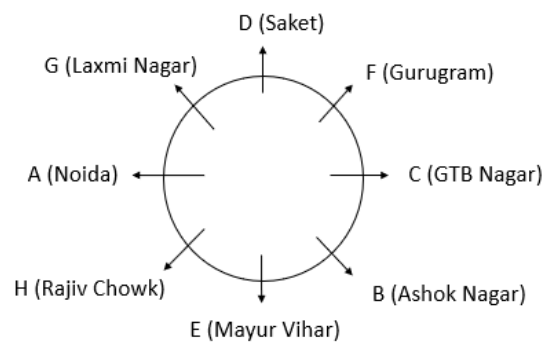
20. Questions 1-5



21. Questions 6-10

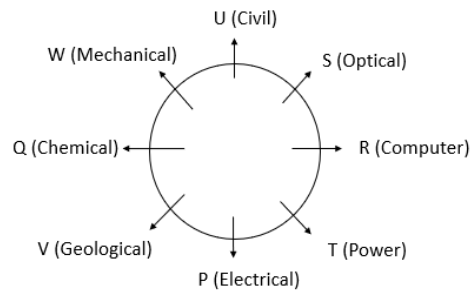


22. Questions 11-15

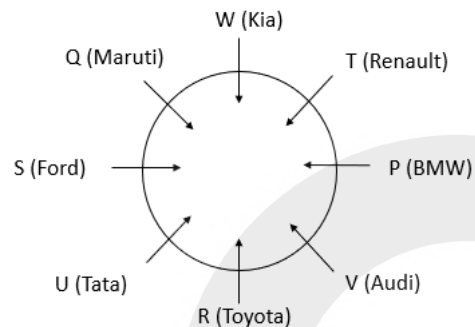




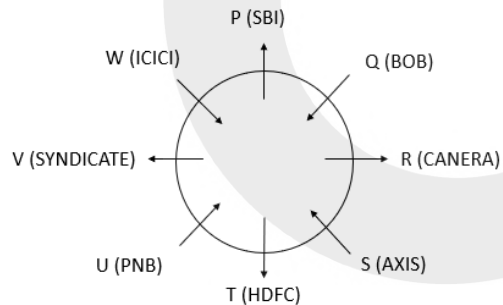
a. Questions 16-20



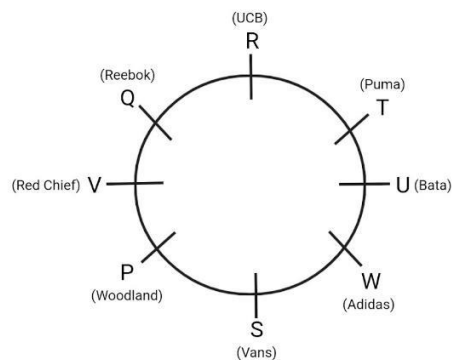
23. Questions 21-25



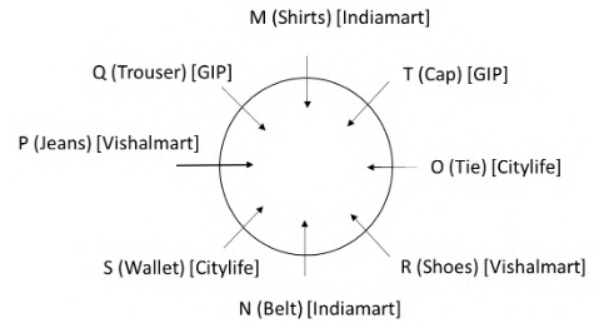
24. Questions 26-30



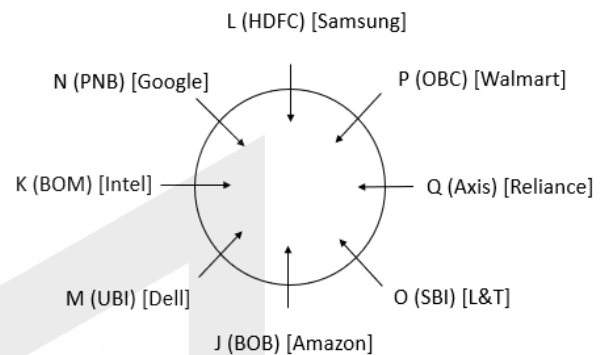
25. Questions 31-35



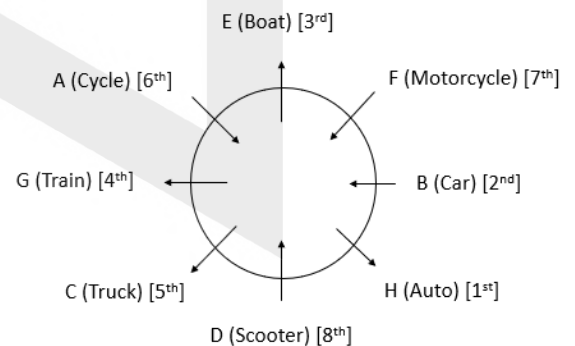
26. Questions 36-40



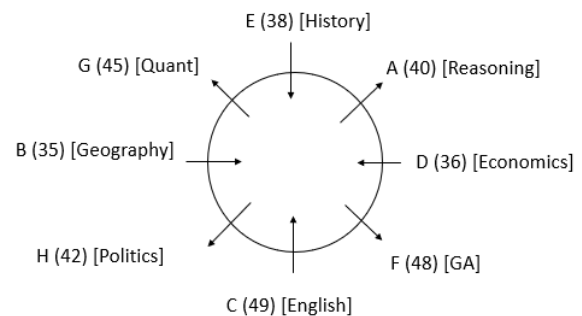
27. Questions 41-45



28. Questions 46-50



29. Questions 51-55





TABULAR PUZZLES SOLUTION

Exercise - 1

1. Questions 1-5

BOX	NO. OF TOYS
M	64
P	39
S	27
Q	41
N	13
R	78
O	50

2. Questions 6-10

BOX	COLOUR
P	Red
T	Black
Q	Orange
U	Indigo
V	White
R	Brown
S	Purple

3. Questions 11-15

BOX	FLOWER
G	Iris
A	Marigold
C	Jasmine
F	Aster
E	Lily
D	Tulip
H	Sunflower
B	Daisy

4. Questions 16-20

FLOOR	PERSON
8	U
7	P
6	S
5	V
4	R
3	T
2	W
1	Q

5. Questions 21-25

ORDER	BOX
8	H
7	I
6	M
5	L
4	G
3	N
2	J
1	K

6. Questions 26-30

FLOOR	PERSON
8	T
7	S
6	R
5	W
4	Q
3	U
2	P
1	V

7. Questions 31-35

FLOOR	PERSON
8	A
7	F
6	H
5	B
4	D
3	E
2	C
1	G

8. Questions 36-40

FLOOR	PERSON
9	V
8	Q
7	W
6	X
5	T
4	R
3	P
2	S
1	U



9. Questions 41-45

PERSON
H
B
D
F
C
A
I
G
J
K
E

10. Questions 46-50

FLOOR	PERSON
7	U
6	Q
5	P
4	T
3	R
2	S
1	V

11. Questions 51-55

BOX
D
A
F
H
E
B
G
C
I

12. Questions 56-60

FLOOR	PERSON
8	C
7	E
6	A
5	D
4	F
3	G
2	B
1	H

13. Questions 61-65

BOXES
O
S
W
R
Q
T
N
U
P
V
M

14. Questions 66-70

FLOOR	PERSON	COUNTRY
7	D	Korea
6	C	Saudi Arabia
5	G	Russia
4	B	Kazakhstan
3	E	China
2	F	Austria
1	A	Bangladesh

15. Questions 71-75

PERSON
D
G
C
A
B
E
F

16. Questions 76-80

DAY	SUBJECT
Monday	Maths
Tuesday	Economics
Wednesday	History
Thursday	Geography
Friday	English
Saturday	Business Studies
Sunday	Finance



17. Questions 81-85

PERSON	YEAR
E	1946
A	1967
B	1972
C	1982
D	1984
G	1989
F	1992

18. Questions 86-90

MONTH	PERSON
January	R
February	P
March	V
May	T
July	S
September	U
November	Q

19. Questions 91-95

MONTH	PERSON
March	K
April	I
May	J
June	H
July	M
August	N
September	L
October	G

Exercise - 2

20. Questions 1-5

POSITION	BOXES	COLOURS
7	U	Violet
6	X	Orange
5	T	Indigo
4	W	Grey
3	Y	Red
2	S	Brown
1	V	Yellow

21. Questions 6-10

BOXES	COLOURS	NO. OF TOYS
K	Orange	32
G	Indigo	15
L	Grey	18
H	Yellow	24
I	Black	10
J	Brown	21

22. Questions 11-15

POSITION	BOX	CHOCOLATES
7	R	9
6	U	21
5	Q	15
4	T	24
3	V	12
2	P	18
1	S	6

23. Questions 16-20

POSITION	BOX	CHOCOLATES
7	R	Bounty
6	U	Mars
5	Q	5-Star
4	T	Fuse
3	V	Munch
2	P	Twix
1	S	Galaxy

24. Questions 21-25

Box	Colour	No. of Books
C	Violet	25
B	Indigo	11
G	Orange	8
D	Purple	13
A	Peach	19
F	Black	21
E	Brown	5



25. Questions 26-30

FLOOR	PERSON	COLOUR
8	V	Red
7	U	Black
6	R	Indigo
5	W	Blue
4	Q	Yellow
3	P	Purple
2	T	White
1	S	Brown

26. Questions 31-35

DAY	PERSON	STATE
Monday	C	Kashmir
Tuesday	B	UP
Wednesday	E	Punjab
Thursday	Holiday	-
Friday	F	Delhi
Saturday	D	Gujarat
Sunday	A	Chhattisgarh

27. Questions 36-40

POSITION	BOX	ITEM	WEIGHT (Kg.)
7	C	Cheese	25
6	F	Camera	2
5	B	Lotion	15
4	E	Dolls	6
3	G	Ramen	10
2	A	Cocoa	30
1	D	Scissors	5

28. Questions 41-45

Shelves	Boxes	Colour	Width of the shelf	Area of the Box
7	5-Star	Brown	21	81
6	Bounty	Violet	17	289
5	Hershey	Red	5	169
4	Fuse	Black	9	64
3	Snickers	White	15	144
2	Twix	Indigo	11	49
1	Mars	Grey	35	25

29. Questions 46-50

Place	Box	Subject	Colour
1	A	Hindi	Orange
2	E	Biology	Green
3	G	Economics	White
4	C	Maths	Green
5	H	History	Yellow
6	D	Chemistry	Yellow
7	F	Physics	Orange
8	I	Geography	White

30. Questions 51-55

Box	Colour	Toffees
S		156
R	White	
Q	Orange	
P	Brown	
O	Indigo	96
N	Black	
M		60
L	Grey	48
K		
J	Violet	
I		12
H		
G		

Question 53

Box	Colour	Toffees
G		156
H	White	
I	Orange	
J	Brown	
K	Indigo	96
L	Black	
M		60
N	Grey	48
O		
P	Violet	
Q		12
R		
S		



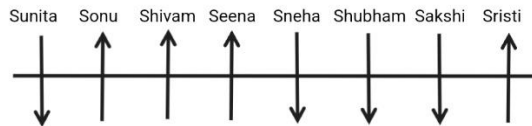
LR LINEAR SOLUTIONS

Exercise - 1

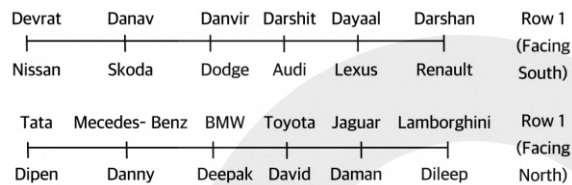
1. Question 1 - 5



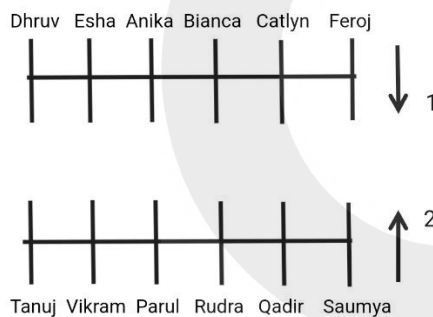
2. Question 6 - 10



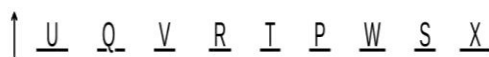
3. Question 11 - 15



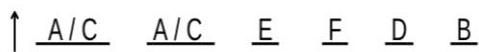
4. Question 16 - 20



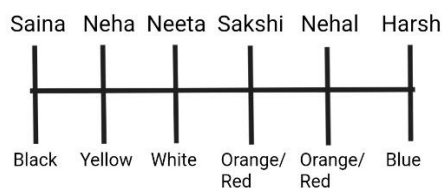
5. Question 21 - 25



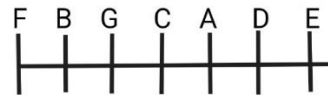
6. Question 26 - 30



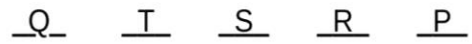
7. Question 31 - 35



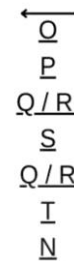
8. Question 36 - 40



9. Question 41 - 45



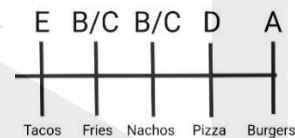
10. Question 46 - 50



11. Question 51 - 55



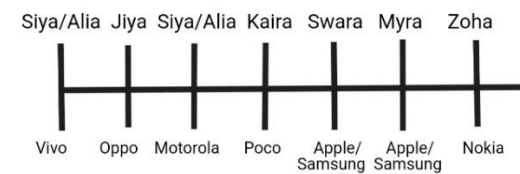
12. Question 56 - 60



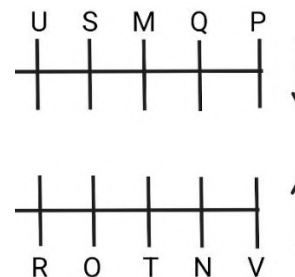
13. Question 61 - 65



14. Question 66 - 70

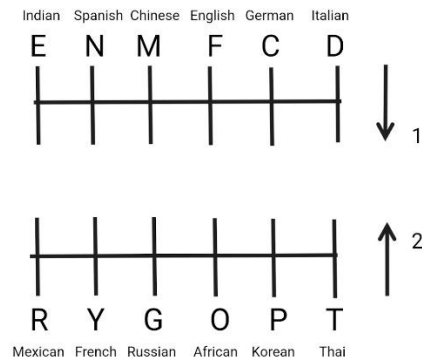


15. Question 71 - 75





16. Question 76 – 80



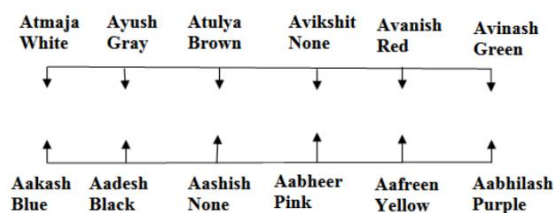
17. Question 81 – 85

Floor	Person	Colour
8	V	Black / Green
7	R	Yellow
6	W	Orange
5	S	Black / Green
4	P	Red
3	Q	White
2	U	Pink
1	T	Blue

18. Question 86 – 90

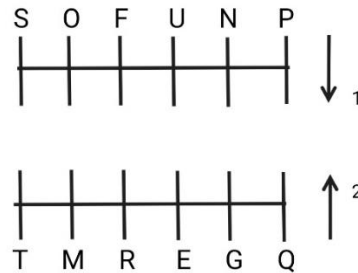
Days	Subjects	Person
Monday	English	D
Tuesday	Holiday	Holiday
Wednesday	Science	B
Thursday	Drama	A
Friday	History	C
Saturday	Geography	E
Sunday	Holiday	Holiday

19. Question 91 – 95



Exercise – 2

20. Question 1 – 5



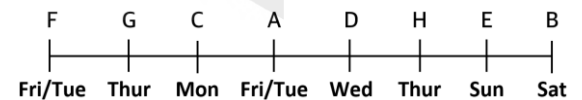
21. Question 6 – 10

Number	Arrival	Departure
1	Namit	Naaz
2	Niraj / Naira	Neeta
3	Neeta	Nimish
4	Nimish	Namit
5	Niraj / Naira	Neha
6	Naaz	Niraj
7	Neha	Naira

22. Question 11 – 15

Floor	Person	Dishes
5	B	Tea
4	E	Pizza / Burger
3	A	Pizza / Burger
2	D	Coffee
1	C	Tacos

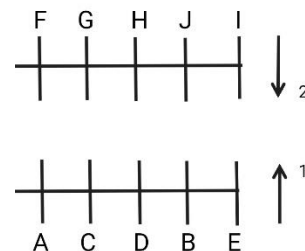
23. Question 16 – 20



24. Question 21 – 25

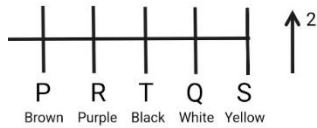
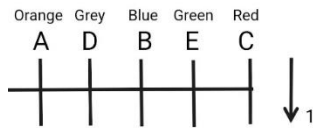
A(BLACK) D(BROWN) E(BLUE) C(RED) B(YELLOW)

25. Question 26 – 30

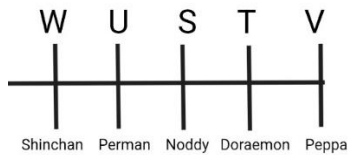




26. Question 31 – 35



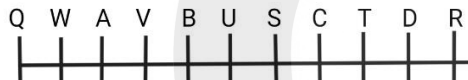
27. Question 36 – 41



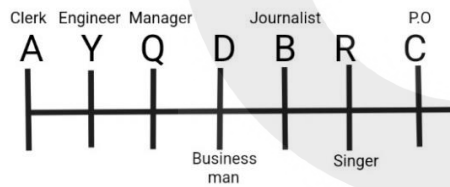
28. Question 42 – 46



29. Question 47 – 51



30. Question 52 – 56





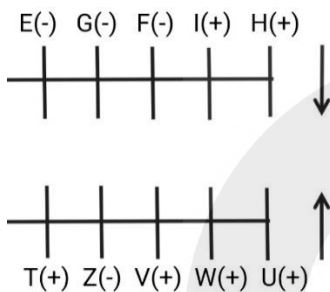
MIXED PUZZLES SOLUTIONS

Exercise - 1

1. Questions 1-5

Person	Date	Month
E	15	January
H	25	January
B	15	April
F	25	April
G	15	November
D	25	November
C	15	December
A	25	December

2. Questions 6-10



3. Questions 11-15

Players	Club	Country
Mane	Roma	Morocco
Salah	PSG	England
Yamal	BARCA	Italy
Jude	LIVERPOOL/JUVENTUS	Turkey
Jamal	Madrid	Portugal
Robert	LIVERPOOL/JUVENTUS	Spain

4. Questions 16-20

	Mar-31	Jul-31	Sep-30	Nov-30
23rd	M	N	P	T
29th	R	Q	O	S

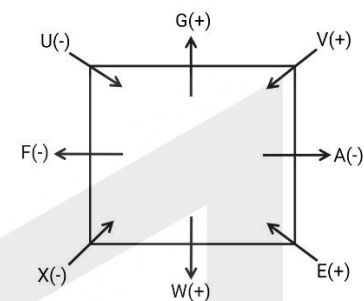
5. Questions 21-25

Floor	Person	Type
8	M	Residential
7	Commercial	
6	D	Residential
5	A	Residential
4	G	Residential
3	S	Residential
2	R	Residential
1	N	Residential

6. Questions 26-30

Rank in Kabaddi	Country	Rank in Hockey	Country
1	India	1	South Korea
2	Pakistan	2	Pakistan
3	Iran	3	Japan
4	Afghanistan	4	Afghanistan
5	Japan	5	Australia
6	South Korea	6	India/Iran
7	Australia	7	India/Iran

7. Questions 31-35



Male (+), Female (-)

E(+) = U(-)

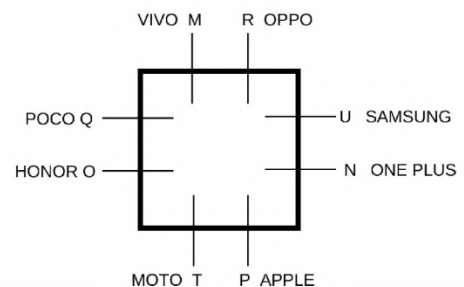
V(+) = F(-)

G(+) = A(-)

8. Questions 36-40

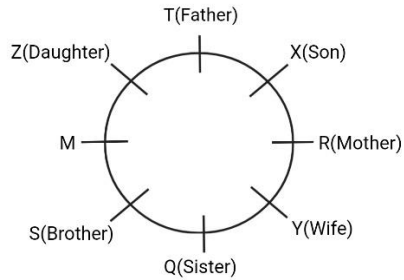
Gymnasts	Gender	Time	Grappler	Gender	City
L	Male	06:00 PM	W	Male	Sydney
K	Female	07:00 PM	Z	Female	Toronto
M	Female	08:00 PM	V	Female	New York
J	Male	09:00 PM	Y	Male	Sao Paulo
N	Female	10:00 PM	X	Female	Las Vegas

9. Questions 41-45





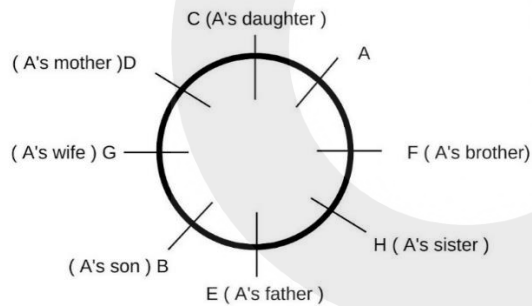
10. Questions 46-50



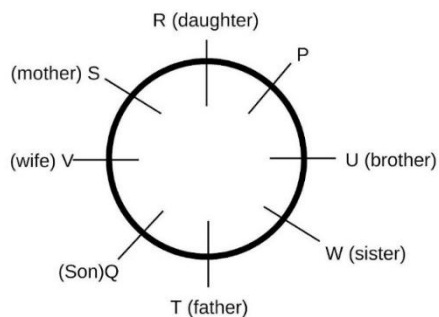
11. Questions 51-55

Person	Floor	Apartment
N	7	2 - BHK
M	6	1 - BHK
Q	5	2 - BHK
P	4	1 - BHK
R	3	2 - BHK
S	2	1 - BHK
O	1	2 - BHK

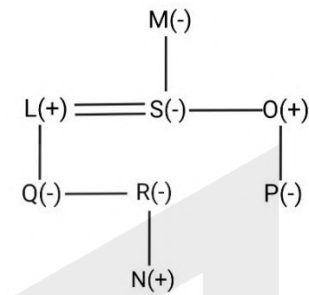
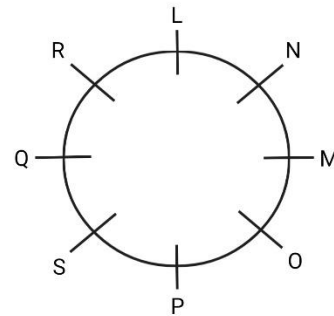
12. Questions 56-60



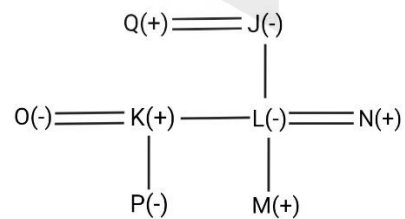
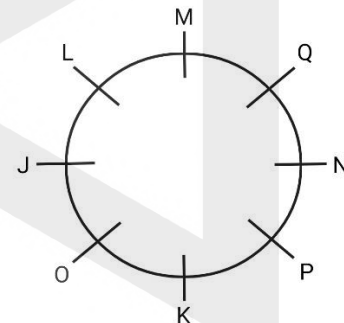
13. Questions 61-65



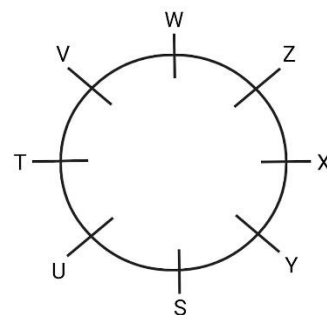
14. Questions 66-70

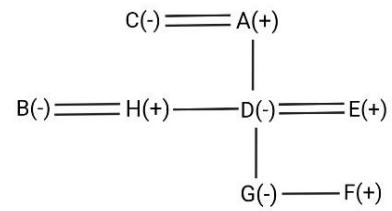
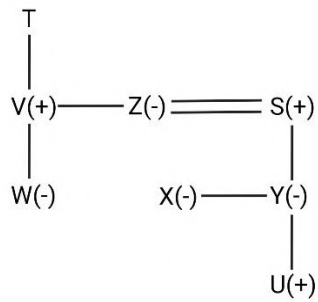


15. Questions 71-75

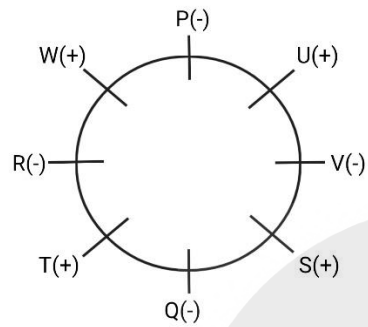


16. Questions 76-80

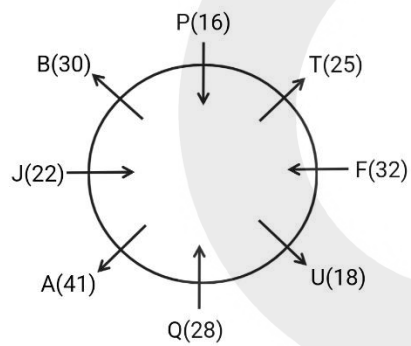




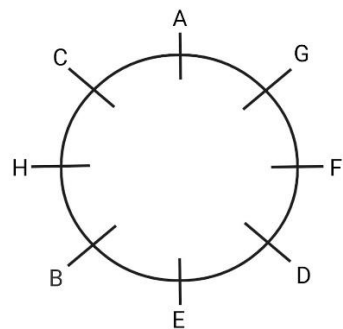
17. Questions 81-85



18. Questions 86-90

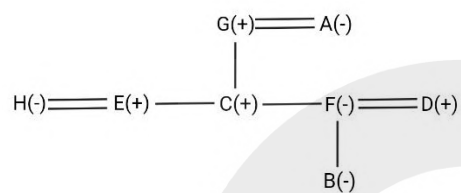
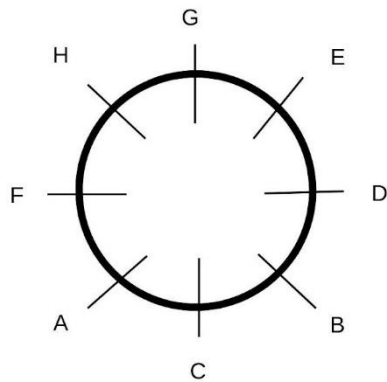


19. Questions 91-95



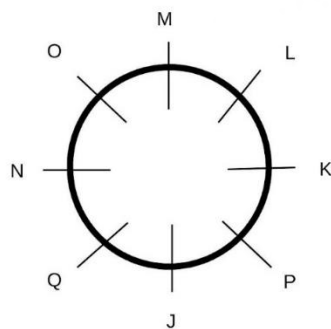

Exercise - 2

20. Questions 1-5



21. Questions 6-10

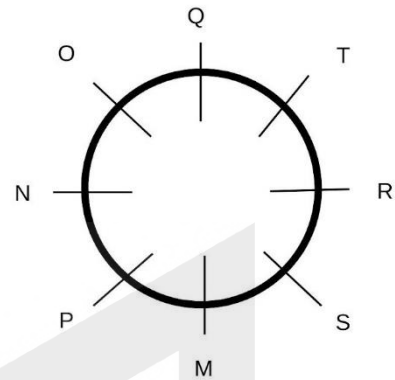
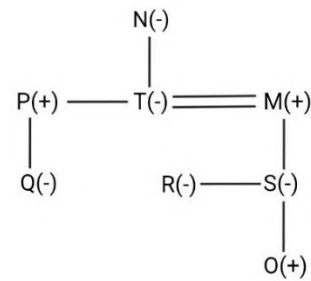
Person	Age
N	1981 - 36
O	1983 - 34
K	1985 - 32
J	1987 - 30
L	1989 - 28
P	1991 - 26
Q	1993 - 24
M	1995 - 22



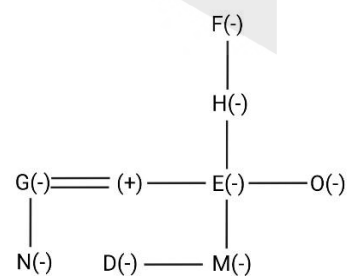
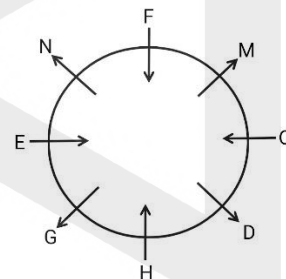
22. Questions 11-15

G	J	E	I	D	F	H	K
female	male	male	male	female	male	female	female
Sonata	Titan	Rolex	Rolex	Omega	Titan	Fastrack	Omega

23. Questions 16-20

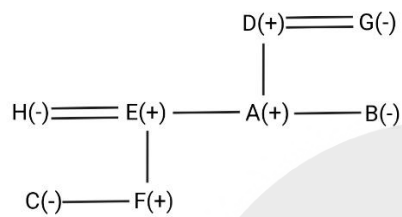
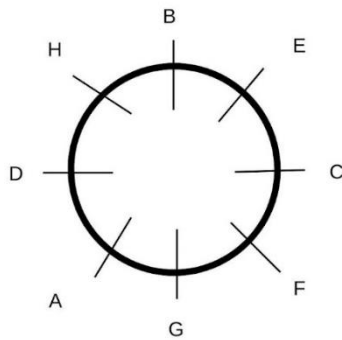


24. Questions 21-25





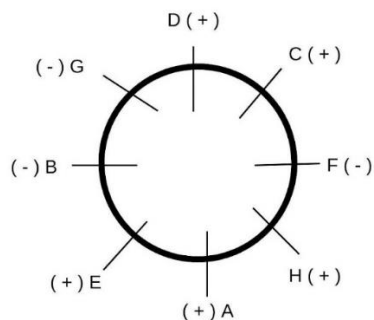
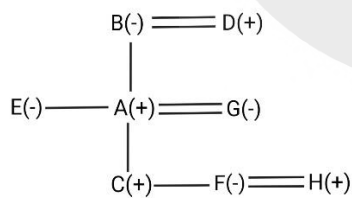
25. Questions 26-30



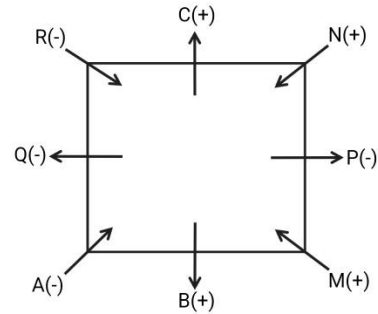
26. Questions 31-35

Coach	Gender	Day	City
Swimming	Female	Monday	Delhi
Boxing	Female	Tuesday	Mumbai
Wrestling	Male	Wednesday	Hyderabad
Judo	Female	Thursday	Bangalore
Archery	Male	Friday	Nashik

27. Questions 36-40



28. Questions 41-45



$$M(+) \equiv R(-)$$

$$N(+) \equiv Q(-)$$

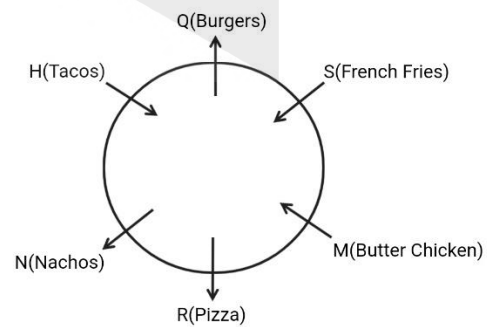
$$C(+) \equiv P(-)$$

29. Questions 46-50

Floor	Person	Colour
8	Q	Brown
7	R	Red
6	N	Orange
5	M	Blue
4	O	Grey
3	T	Purple
2	P	Yellow
1	S	White

30. Questions 51-55

Males - H, N, Q, S Females- M, R





GROUPING SOLUTIONS

1. **Answer: C**

Solution

If R is selected, P cannot be selected. So, P S A D is wrong: D and Q cannot go together. So, Q S A D is wrong. S and A have to be together, So, Q S C E is wrong.

2. **Answer: D**

Solution

If D is selected, Q cannot be selected. So, P Q B C and P Q C E are not correct. S and A have to be together. So, P S C E is also wrong.

3. **Answer: C**

Solution

If A and C are members, S and E have also to be selected. So, P Q E is not the correct combination.

4. **Answer: B**

Solution

P and R cannot be together. So, R S A D is wrong. S and A have to be together. So, Q S B D and Q S C E are incorrect.

5. **Answer: B**

Solution

If A is selected, S has to be selected.

If B is selected, R can not be selected.

If D is selected, Q cannot be selected.

So, A D S Q R and B D S R Q are wrong. C E S P Q is not possible because S has to be accompanied with A.

6. **Answer: A**

Solution

The male advocates are A and B, lady doctors are P, Q and S; teachers are E, T and U. Now, A and B will be selected. A, P and U have to be together. Now, we have to select one lady doctor more. It can be Q or S. But Q and E have to be together. Since E is not selected, so S will be selected. Thus, the term is A B P U S.

7. **Answer: A**

Solution

The advocates are A, B and R; doctors are C, D, P, Q, S; teachers are E, T and U. The term consists of 3 teachers i.e. E, T, U. Now, A, P, and U have to be together. E and Q have to be together. Thus, the team is A E P Q T U.

8. **Answer: B**

Solution

The male advocates are A and B; male doctors are C and D; lady doctors are P, Q and S; teachers are E, T and U. If A is selectors, P and U will be selected, D and P cannot go together. So, a male doctor C will be selected. C and T have to be together. Thus, the team is A C P T U. If B is selected, D will not be selected. So, male doctor C will be chosen. C and T have to be together. Now, the second teacher to be selectees E and U. But U cannot go without A. So, will be selected. E and Q have to be together. Thus, the team can also be B C E Q T.

9. **Answer: D**

Solution

The advocates are A, B and R; the doctors are C, D, P, Q and S; male teacher is E. Clearly, E will be selected, E and Q have to be together. C and Q cannot be together. So, C will not be selected. P also cannot be selected because U is not selected. So, two other doctors, D and S will be selected. P is not selected, so A will not be selected. D is selected, so B cannot be selected. Thus, the team is D E Q R S.

10. **Answer: B**

Solution

A C P R T U and A E P Q R T are wrong because each of these combinations consists of four ladies. B C E Q R T is incorrect because B and R cannot go together.

11. **Answer: C**

Solution

As per the given all information in above question ,
Write down the information given

L → D (Lion and Dear cannot be together)

P → D & Bs (A Panther cannot be with a Dear or a Bison)

Suman → L

Mohan → L + P

Jack → P or B

Hence we can short out following table

Since Z & P have the same pair of animals, the other 3 enclosures viz. X, Y and Q must contain the other 3 species within themselves.

So apart from Lion and panther, Bear must be third species in X, Y, Q.



Jack gets Bear and Panther as he doesn't handle lion (given) that leaves, Q with Lion and Bear; which goes to Shalini as Suman doesn't handle lion (given).

Keeper	Animal	Enclosure
Mohan	L + P (given)	X (given)
Jack	B + P	Y (given)
Shalini	B + L	Q
Suman	D + B	P
Rita	D + B	Z (given)

12. **Answer: C**

Solution

As per the given all information in above question ,
Write down the information given

$L \rightarrow D$ (Lion and Dear cannot be together)

$P \rightarrow D \& B$ s (A Panther cannot be with a Dear or a Bison)

Suman $\rightarrow L$

Mohan $\rightarrow L + P$

Jack $\rightarrow P$ or B

Hence we can short out following table

Since Z & P have the same pair of animals, the other 3 enclosures viz. X, Y and Q must contain the other 3 species within themselves.

So apart from Lion and panther, Bear must be third species in X, Y, Q.

Jack gets Bear and Panther as he doesn't handle lion (given) that leaves, Q with Lion and Bear; which goes to Shalini as Suman doesn't handle lion (given).

13. **Answer: E**

Solution

As per the given question ,

Case 1: When Earl is in pen 1 and Fala is in pen 2.

Also, there is one among Ashlen and Blakely in pen 1, this will mean Gabino and Daffy will have to be in Pen 2 and Custard will have to be in Pen 1.

Case 2: When Fala is in pen 1 and Earl is in pen 2.

The same situation arises and custard will have to be in pen 1.

So the last option which says Custard is in a higher-numbered pen than Fala is always incorrect.

14. **Answer: B**

Solution

According to the given condition: Earl shares a pen with Fala.

Two condition arises here, either they are Pen 1 or they are in pen 2.

When they are in Pen 1, one among Ashlen and Blakely has to be in pen 1.

This implies Custard has to in pen 2.

When they are in Pen 2, one among Ashlen and Blakely has to be in pen 1 along with Gabino and Daffy.

This implies Custard has to be in pen 2.

In both the condition Custard is in pen 2.

15. **Answer: D**

Solution

Considering all the options one by one :-

Option 1: Since one among Ashlen and Blakely has to be in Pen 2, which is not in the given option
So, Option 1 is incorrect.

Option 2: Ashlen and Blakely has to be opposite Pens.(Condition 2)

So, Option 2 is incorrect.

Option 3: According to the condition 2, if Daffy is not kept in pen 2, then Gabino is kept in pen 1.

So, Option 3 is also incorrect.

Option 5: We know that if Daffy is not kept in pen 2 then Gabino is kept in pen 1.

Option 5 is incorrect.

Option 4 satisfies all the given conditions.

16. **Answer: C**

Solution

Draw a table on the basis of above all given information, we can say that

If both Usha and Veena are interviewed, then Monday, Wednesday, Friday is a complete and accurate list of the days which Kishore could be interviewed.

Mon	Tues	Wed	Thrus	Fri
T_1		S		T_2
R_1		U	R_2	
	K_1		V	K_2

This is the case when Usha interviewed before a day when Ram interviewed.



Mon	Tues	Wed	Thrus	Fri
T ₁		S		T ₂
	R ₁	U		R ₂
K ₁	V		K ₂	

This is the case when Usha interviewed after a day when Ram interviewed

Mon	Tues	Wed	Thrus	Fri
T ₁				T ₂
S	U	R ₁		R ₂
	K ₁	V	K ₂	

This is the case when Shayam and Usha are not interviewed on same day.

17. **Answer: D**

Solution

On the basis of above given details in question, we can draw a table

On the basis of above given details in question, we can draw a table

If neither Usha nor Trilochan is interviewed, Neither Shyam nor Usha nor Veena is interviewed more than once. So, Kishore is interviewed on Wednesday

18. **Answer: A**

Solution

Draw a table on the basis of above all given information, we can say that

If Shyam is interviewed, then Usha is also interviewed, with Shyam's interview taking place earlier than Usha's interview.

Hence, Kishore is interviewed on both Tuesday and Wednesday.

19. **Answer: C**

Solution

On the basis of above given details in question, we can draw a table

If Kishore is not interviewed, Veena's interview taking place after Kishore's first interview and before Kishore's second interview.

So, Trilochan is interviewed on Monday.

20. **Answer: D**

Solution

Draw a table on the basis of above all given information, we can say that

If Veena is interviewed on Tuesday, then Shyam is not interviewed on same day

21. **Answer: A**

Solution

On the basis of above given details in question, we can say that complete and accurate list of candidates the human resources director interviews and the days on which those interviews take place is given as :-

Monday: Shyam; Tuesday: Usha; Wednesday: Ram; Thursday: Kishore; Friday: Ram;

22. **Answer: D**

Solution

On the basis of above given details in question, we get

Option (1) and (2) satisfy all the conditions.

Option (3) does not satisfy.

23. **Answer: D**

Solution

As per the above given all information, we can say that No team can be formed with the given condition.

24. **Answer: E**

Solution

As per the given conditions are--

(i) Mala, Ajit and Suman- know how to drive a car.

(ii) Females are Mala and Sapna and Males are Ajit and Sarat.

Condition-1: At least one person should be in each car who knows driving.

Condition-2: Manjit and Sarat are not in the same car.

Condition-3: Each car has three persons and the cars cannot have all women or all men passengers.

Condition - 4: Each car has exactly three persons.

It is given that Suman and Manjit are the two passengers in the red car. And Suman can drive the car. And Manjit is in red car, so Sarat must go in the blue car. Also, only one out of Mala and Ajit can go in the red car (as three persons in one car) or Sapna can go in the red car. It satisfy all the conditions.

Here all the four given options are correct.

25. **Answer: A**

Solution

As per the given conditions are--

(i) Mala, Ajit and Suman- know how to drive a car.



(ii) Females are Mala and Sapna and Males are Ajit and Sarat.

Condition-1: At least one person should be in each car who knows driving.

Condition-2: Manjit and Sarat are not in the same car.

Condition-3: Each car has three persons and the cars cannot have all women or all men passengers.

Condition-4: Each car has exactly three persons.

If Manjit is in red car, Sarat will be in blue car, then

Red car \Rightarrow Manjit, Ajit (M)

Blue car \Rightarrow Sarat (M), Mala (F)

As per the given condition since at least one man (Sarat) and one woman (Mala) in blue car. So, one man and one woman will certainly go in red car.

Therefore, 'Manjit is a woman' can be a true statement. Similarly, 'Suman is a man' can be a true statement.





SELECTION CRITERIA SOLUTIONS

1. **Answer: E****Solution**

Clearly, the candidate Nelson Alwa fulfils conditions (1), (2) and (4) Further, being a College Librarian for 16 years, he satisfies condition (5). So, the answer is E.

2. **Answer: A****Solution**

Romin Kalra, being an M.Phil satisfies condition (7) so that condition at (1) is waived. Then, he satisfies conditions (2), (3) and (4). So, he is selected, and the answer is A.

3. **Answer: B****Solution**

Candidate satisfies condition (4). Being a Deputy Librarian for last 27 years. she satisfies condition (3). But having marks less than 65%, she violates the condition (1) and so the answer is B.

4. **Answer: A****Solution**

The candidate, being a Ph.D. satisfies condition (7) so that condition at (1) is waived. She satisfies conditions (2) and (4) and being a Deputy Librarian for 16 years, she satisfies condition (3). So, the answer is A.

5. **Answer: C****Solution**

Here, information on the candidates regarding (2) and (4) are not mentioned. So, the answer is C

6. **Answer: A****Solution**

All conditions of eligibility are satisfied.

7. **Answer: C****Solution**

Condition (3) is violated but it can be waived by condition (6), which is missing.

8. **Answer: D****Solution**

The candidate satisfies all conditions except (4). But she fulfils condition (5) so that (4) is waived.

9. **Answer: E****Solution**

The candidate satisfies condition (6) instead of condition (3).

10. **Answer: A****Solution**

All conditions of eligibility are satisfied.

11. **Answer: C****Solution**

Conditions (1) and (3) are missing.

12. **Answer: D****Solution**

All conditions of eligibility are satisfied, except (1). But he joined the organisation as a manager i.e. Condition 6 is satisfied.

13. **Answer: C****Solution**

Condition (4) is missing.

14. **Answer: E****Solution**

Having less than 5 years of service remaining, the candidate does not satisfy condition (3).

15. **Answer: D****Solution**

The candidate satisfies conditions (2), (3), (4) and (5), and condition (7) instead of (1).

16. **Answer: A****Solution**

All conditions of eligibility are satisfied.

17. **Answer: B****Solution**

Conditions (1) and (3) are not satisfied.

18. **Answer: A****Solution**

All conditions of eligibility are satisfied.

19. **Answer: C****Solution**

Condition (1) is missing.

20. **Answer: A****Solution**

All conditions of eligibility are satisfied.

21. **Answer: A****Solution**

The candidate satisfies all conditions except (6) and (7). But he fulfils condition (9) so that (6) and (7) are waived.

22. **Answer: C****Solution**

Condition (1) is missing.



23. **Answer: B**

Solution

Having dealership in an oil company, the candidate does not satisfy condition (6)

24. **Answer: D**

Solution

Condition (8) is fulfilled instead of condition (5).

25. **Answer: C**

Solution

Condition (7) is missing.

26. **Answer: E**

Solution

Condition (10) is satisfied instead of condition (4).

27. **Answer: A**

Solution

All conditions of eligibility and condition (9) instead of conditions (6) and (7) are satisfied.

28. **Answer: D**

Solution

The candidate satisfies condition (8) instead of condition (5).

29. **Answer: B**

Solution

Having a family income of more than C\$ 50,000 and not working in a State Corporation, the candidate does not satisfy condition (5).

30. **Answer: C**

Solution

The age of the candidate is not mentioned.

31. **Answer: B**

Solution

The candidate has not completed 18 years of age.

32. **Answer: E**

Solution

The age of the candidate is not mentioned.

33. **Answer: A**

Solution

All conditions of eligibility are satisfied.

34. **Answer: B**

Solution

Being less than 18 years old on 1st September, 1994, the candidate does not satisfy condition (2).

35. **Answer: E**

Solution

Whether the candidate had Physics in XIIth Std. or not is not mentioned.

36. **Answer: D**

Solution

The candidate satisfies condition (6) instead of condition (4).

37. **Answer: B**

Solution

The candidate does not satisfy condition (2).

38. **Answer: E**

Solution

The candidate does not satisfy condition (2).

39. **Answer: B**

Solution

The candidate satisfies condition (2) and condition (3) instead of condition (1).

40. **Answer: A**

Solution

The candidate satisfies all conditions of selection.

41. **Answer: E**

Solution

Condition (1) is not satisfied.

42. **Answer: E**

Solution

Getting 24% marks in interview, the candidate does not satisfy condition (7).

43. **Answer: E**

Solution

Getting 28% marks in interview, the candidate does not satisfy condition (7).

44. **Answer: B**

Solution

The candidate satisfies condition (2), and condition (3) instead of condition (1).

45. **Answer: A**

Solution

The candidate has passed the interview. This means that he satisfies all conditions for selection.

46. **Answer: D**

Solution

The candidate satisfies conditions (1) and (2) and has qualified in group discussion. So, by condition (6), he can be called for interview.

47. **Answer: D**

Solution



The candidate satisfies conditions (1) and (2) and has qualified in group discussion.

48. **Answer: A**

Solution

Condition (3) is not satisfied.

49. **Answer: B**

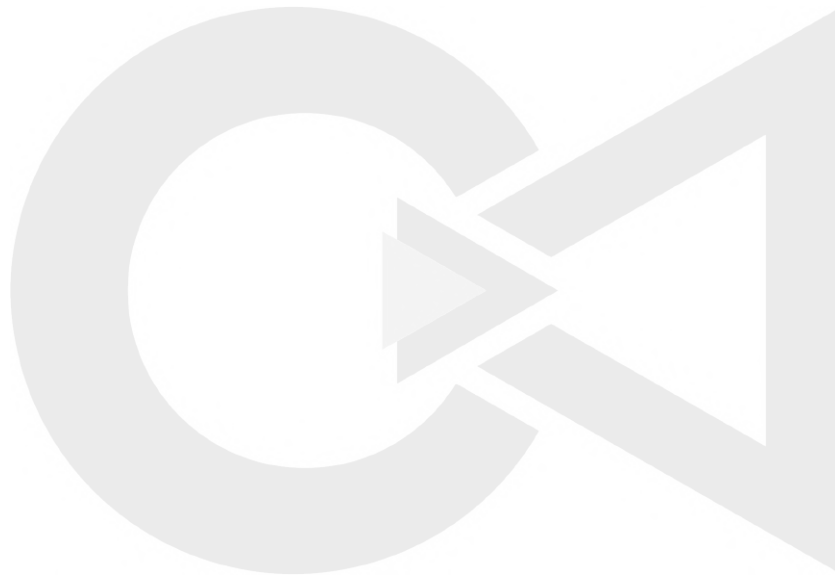
Solution

All the conditions of eligibility are satisfied.

50. **Answer: E**

Solution

Being an M.B.A. but not Microsoft Certified, or SUN Certified, the candidate satisfies condition (7) but not condition (2).





CRITICAL REASONING SOLUTIONS

Exercise 1

1. **Answer: A**

Solution

Argument I is strong. Judgment in subjective tests depends upon the individual who judges while that in objective tests is fair and impartial. So, argument II is weak.

2. **Answer: E**

Solution

Both are strong. It is true that the government should not promote gambling habits which it does through its lotteries. It is also true that the government would lose a major source of revenue if lotteries were stopped.

3. **Answer: D**

Solution

To defend India against the threat of other military powers in the world, it needs to have military force. So, both the arguments does not holds strong.

4. **Answer: A**

Solution

Argument I looks probable because abolishing personal taxes will motivate people to earn more. But argument II is not desirable because the personal tax is not a way of sharing wealth with other people.

5. **Answer: B**

Solution

Argument I is not strong. Argument II is desirable because it is not possible to analyses the deserving and the undeserving.

6. **Answer: D**

Solution

While the statement is about the increase of taxes levied on television, the arguments talk about affordability of television between the rich and the poor. Both the arguments hence are vague.

7. **Answer: B**

Solution

Argument I is not a proper reason to make loyalty the only criterion for promotion. But argument II is strong.

8. **Answer: B**

Solution

Argument I does not give a strong reason. But argument II is strong.

9. **Answer: B**

Solution

Imposing a ban on fashionable dresses will be restriction on the personal choice and hence the right to freedom of an individual. So only argument II is desirable.

10. **Answer: D**

Solution

In argument I it is not directly stated how the sovereignty and integrity of the country is protected by manufacturing atom bombs, argument II is also not strong.

11. **Answer: B**

Solution

Argument I is not a proper reason not to provide slum dwellers with free houses. But argument II is strong.

12. **Answer: D**

Solution

Argument II is based upon example; hence it is a weak argument. I argue about the cheaper cost and convenience of polythene bags. The harmful effects associated with the use of polythene bags are more severe. So, argument I is not acceptable.

13. **Answer: A**

Solution

Only argument I holds strong. Considering the changed scenario in the sub-continent more javans and officers should be inducted. Argument II does not make a major point.

14. **Answer: D**

Solution

None is strong. First is based on example. So, it is weak. Second is also weak because in a developing country, a policy cannot be followed merely on the pretext that it is pursued in the western countries.

15. **Answer: B**

Solution

Only one university throughout India is not the only way to bring uniformity in educational standards. Because we can have many universities, all following the same curricular and policies under one board. So Argument I is weak. Argument II is strong because the administration will become impossible.

16. **Answer: D**

Solution



Argument I does not provide a valid reason for the pursuance of the policy. Argument II is not desirable because there are even some illiterate whose suggestions will be off some value.

17. **Answer: D**

Solution

Argument I does not hold. A ban on people should not be enforced on people because it is there basic human rights to decide there diet. Argument II is also weak because "nothing should be banned" is not an acceptable truth.

18. **Answer: D**

Solution

If young people are misguided it does not mean that we should stop something. Similarly, argument II against the statement is weak because it is not the only way to educate the masses, there are other ways as well. The second, if it is the "only" way as stated, then certainly they should not be stopped. Hence, if neither I nor II is strong. The correct option is (D).

19. **Answer: D**

Solution

There is no need to prohibit smoking only to save money. So Argument I is weak. Argument II is not desirable because a hazardous task should not be continued to provide employment.

20. **Answer: A**

Solution

Argument I is strong because persons who violate the law need to be punished. Even if dowry system is deep-rooted, it is still illegal and needs to be ended.

21. **Answer: B**

Solution

Only argument II is strong I is in the form of a question thrown back. So it is a weak argument.

22. **Answer: D**

Solution

None is strong. Both of them mention trivial aspects.

23. **Answer: D**

Solution

Argument I may or may not follow in actual practice as it depends on one's individual perception. Hence argument I is not strong. It is true that we should be proud of our ancient language. But only for this reason, it is not desirable to make 'sanskrit' compulsory at school level.

24. **Answer: D**

Solution

Neither argument I nor argument II is strong. There is no possibility of weakening of our present social structure as we give education to girls and women in India. Argument II is also weak because it is not the only way to bring back glory to Indian women hood.

25. **Answer: D**

Solution

None is strong. argument I is too simple. it simply accepts the issues without giving any reason. Second is based upon example.

26. **Answer: A**

Solution

If Doordarshan is given autonomous status, it will be a step towards giving it independence for an impartial coverage. So argument I is strong. Autonomous status does not mean that the coverage will be decided by a few. So argument II is weak.

27. **Answer: B**

Solution

I is vague. The adult education programme needs to be given priority because it shall eliminate adult illiteracy and thus help in further spread of education.

28. **Answer: D**

Solution

None is strong. Investment of money in computers is not a waste. Argument II is based upon examples.

29. **Answer: E**

Solution

Clearly, by starting big industries, new job opportunities will be created. So argument I is strong. But pollution is always a big problem with big industries. So argument II also holds.

30. **Answer: A**

Solution

Argument I is an established fact that higher education promotes country's development. So I holds. Argument II is weak because higher education is not the cause of unemployment.

**Exercise 2****1. Answer: A****Solution**

Assumption 1: "People are aware of the benefits of regular exercise."

This assumption can be considered implicit because it is reasonable to assume that if regular exercise is essential for maintaining good health, people would generally be aware of its benefits.

Assumption 2: "People have access to facilities for exercise."

This assumption is not directly supported by the given statement. It introduces an external factor related to the availability of exercise facilities. Therefore, it cannot be considered implicit based solely on the given statement.

2. Answer: A**Solution**

Let's evaluate the assumptions:

Assumption 1: "Birds have wings."

This assumption is implicit because the statement "All birds can fly" implies that birds possess wings, which are necessary for flight.

Assumption 2: "All birds are capable of sustained flight."

This assumption is not supported by the given statement.

The statement only asserts that all birds can fly, but it does not specify whether they can fly for sustained periods of time. Therefore, this assumption cannot be considered implicit.

3. Answer: E**Solution**

The given statement asserts that implementing strict gun control laws will result in a reduction of gun-related violence. Let's evaluate the two assumptions:

Assumption 1: "Access to firearms is a significant factor contributing to gun-related violence."

This assumption is implicit because the statement assumes that access to firearms plays a role in gun-related violence. If access to firearms has no correlation with gun-related violence, then the effectiveness of implementing strict gun control laws in reducing violence would be questionable.

Assumption 2: "Enforcing strict gun control laws will effectively limit access to firearms."

This assumption is implicit because the statement implies that implementing strict gun control laws will lead to reduced access to firearms. If strict gun control laws are not

effectively enforced or do not result in limited access to firearms, it would undermine the argument that such laws would reduce instances of gun-related violence.

4. Answer: E**Solution**

The given statement highlights the positive impact of promoting education for girls in developing countries on social and economic empowerment. Let's evaluate the two assumptions:

Assumption 1: "Gender inequality in education is a significant barrier to social and economic empowerment in developing countries."

This assumption is implicit because the statement implies that gender inequality in education acts as a hindrance to social and economic empowerment. If gender inequality in education is not a significant barrier or does not have a direct impact on social and economic empowerment, then the argument for promoting education for girls in developing countries would be weakened.

Assumption 2: "Providing education to girls will result in increased opportunities for their social and economic advancement."

This assumption is implicit because the statement suggests that by providing education to girls, it will lead to enhanced social and economic opportunities. If providing education to girls does not result in improved social and economic outcomes or if other factors significantly restrict their opportunities, the effectiveness of promoting education for girls in achieving social and economic empowerment would be undermined.

5. Answer: E**Solution**

Both assumptions are implicit in this example. For the statement to hold true, it is necessary to assume that employees have the required infrastructure, such as a reliable internet connection and necessary tools, to effectively work from home. Additionally, the assumption that reduced commuting time and improved work-life balance positively impact employee productivity aligns with common beliefs and experiences.

6. Answer: E**Solution**

Both assumptions are implicit in this example. The first assumption assumes that high-income earners hold a larger proportion of total income, which justifies targeting them



to reduce income inequality. The second assumption implies that higher taxes on high-income earners will be accompanied by measures that redistribute the tax revenue to support lower-income individuals, effectively reducing income inequality.

7. **Answer: E**

Solution

Both assumptions are implicit in this example. The first assumption is based on the belief that investments in infrastructure have a positive impact on various sectors of the economy, leading to economic growth. The second assumption implies that the government's increased spending on infrastructure will be sustainable and not result in a fiscal deficit that could have adverse effects on the economy.

8. **Answer: A**

Solution

Only first assumption is implicit in this example. The first assumption acknowledges the commonly accepted belief that early childhood is a crucial period for cognitive development. The second assumption cannot guarantee that high-quality early childhood education programs are available and also accessible to all children.

9. **Answer: E**

Solution

Both assumptions are implicit in this example. The first assumption recognizes that the extraction and combustion of fossil fuels have negative environmental consequences, leading to environmental degradation. The second assumption assumes that investments in renewable energy technologies can effectively meet the energy demands, suggesting that renewable sources are a viable alternative to fossil fuels in mitigating environmental degradation.

10. **Answer: C**

Solution

In this example, let's evaluate the assumptions:

Assumption 1: "Historical stock market performance indicates a consistent upward trend."

This assumption implies that the stock market has historically shown a consistent pattern of positive returns. However, it overlooks the possibility of market downturns, corrections, and individual stock performance variations. Therefore, it is not a valid assumption to guarantee high returns.

Assumption 2: "All investments in the stock market are well-researched and diversified."

This assumption assumes that all individuals investing in the stock market conduct thorough research and ensure proper diversification of their portfolios. However, it overlooks the reality that not all investors may have the necessary knowledge, resources, or time to make well-informed and diversified investment decisions. Therefore, this assumption is also not universally valid.

11. **Answer: C**

Solution

In this example, let's evaluate the assumptions:

Assumption 1: "Working longer hours per day during the four-day workweek does not cause excessive stress or burnout."

This assumption is crucial because if employees are required to work longer hours during the four working days, it could lead to increased stress and burnout, undermining the intended improvement in work-life balance. Thus, it is necessary to ensure that longer hours do not compromise employee well-being.

Assumption 2: "Employees' productivity levels remain consistent even with fewer working days."

This assumption suggests that reducing the number of working days to implement a four-day workweek will not significantly impact employee productivity. It assumes that employees can maintain their productivity levels and effectively manage their workload within the compressed schedule. However, the validity of this assumption may vary depending on the nature of the work, industry, and individual work habits.

12. **Answer: C**

Solution

In this example, let's evaluate the assumptions:

Assumption 1: "The primary factor limiting educational outcomes in public schools is a lack of financial resources."

This assumption suggests that inadequate financial resources significantly hinder educational outcomes in public schools. While funding is important, it is not the sole factor influencing educational outcomes. Other factors like teacher quality, curriculum, parental involvement, and student motivation also play essential roles.

Assumption 2: "Increased government funding will be allocated effectively and efficiently to improve educational programs and infrastructure."



This assumption assumes that increased funding will be utilized efficiently to enhance educational programs and infrastructure. However, the effectiveness of funding allocation depends on factors such as transparency, accountability, and the ability to address specific educational needs.

13. **Answer: A**

Solution

Leaning out of a running bus must be dangerous, otherwise the warning would not have been there. Hence I is implicit. But II is not implicit. If the authorities would have assumed that children do not pay any heed to such warning, they would not have put it up there.

14. **Answer: B**

Solution

I is not implicit. The company wants mechanical engineers. One reason could be that the company expects mechanical engineers to be good performers, as I suggest. But there could be another reason; for example, the company's supervisory job could be such that only a mechanical engineer could perform it. But one thing is certain. The advertisement was for supervisors; this means supervisors are needed. Hence II is implicit.

15. **Answer: C**

Solution

The statement asks a man to be humble even after being victorious. This implies that people are usually not humble after victory. I is just the opposite of it. II is not implicit because it generalises the statement. Generally, people may be humble; the point is if they are humble or not after victory.

16. **Answer: E**

Solution

If the letter mentions expenses to be borne by candidates, those who sent the letter must have assumed that the candidates may demand for reimbursement if the point is not clarified to them. Also, the candidates would not demand reimbursement if it was not a prevalent practice. So I and II both are implicit.

17. **Answer: C**

Solution

To dislodge a corrupt government has been mentioned as the present purpose for the call of unity. But this does not mean that this is the only purpose. So I is not implicit. Further, the leader asks like-minded parties to unite against

the government and not the entire opposition. So we cannot generalise that (all) opposition parties are non-corrupt. Hence II is not implicit.

18. **Answer: B**

Solution

Postal rates have been increased. The cause to meet the deficit. This never means that the present rates are low. If the price of goods increases, it is not necessary that the earlier price was low. But the tone of the statement clearly implies that postal rates have been increased out of compulsion, so II is implicit.

19. **Answer: A**

Solution

The statement says that if degrees are delinked from jobs, boys will not join colleges. This implies that jobs are a major reason for them to join college. So, I is implicit. Now, if I is implicit, II is not because II is just the opposite of I.

20. **Answer: A**

Solution

The statement uses a tone that implies that if education is in a shambles, then the country deteriorates. This means that a good education is needed for the well-being of a nation. But this does not mean that a good education alone is sufficient for it. So, I is implicit but II is not.

21. **Answer: A**

Solution

If one says that computers should be taught at schools he must have assumed that it is an easy subject, because schools are a place of elementary education; tougher things are taught at colleges. But the statement does not say anything about jobs. So I is implied, II is not.

22. **Answer: A**

Solution

Obviously, the author assumes that the Board will be functioning after one year, otherwise he would not have fixed the date of the meeting one year later. But there is no hint that the Board will be dissolved after that. So I is implicit, II is not.

23. **Answer: E**

Solution

Both are implicit. The author asks him to consult 'me' before making any decision. Obviously, he is worried that a decision without his consultation may not be correct. So I is implicit. Further, he wouldn't have said so unless he



thought that taking a correct decision was important. Hence II is implicit.

24. **Answer: C**

Solution

None is implicit. Assumption I is a mere twisted form of the given statement. Smoking is injurious. It means that non-smoking is not injurious. And that's it. It doesn't mean that non-smoking promotes health. II obviously is just the opposite of what is true. Public warnings are given only when they are assumed to be necessary.

25. **Answer: A**

Solution

Children must be considering their teachers as role models, otherwise there is no reason why they would be influenced by them. Hence I is implicit. II is not directly stated. It may or may not be true.

26. **Answer: E**

Solution

Both are implicit. The statement recognises the entertainment value of television and at the same time it asserts that its educational value "cannot be ignored". The tone of the passage is slightly lamenting which implies that what the author wants to happen, is not happening presently. This means that I and II both are implicit.

27. **Answer: A**

Solution

When mother gives warning to the child she must be assuming that her warning would be successful. II is not relevant to the statement made by the mother.

28. **Answer: B**

Solution

The statement says that a car is required on rent. It does not say that any vehicle is required. So the statement cannot be said to have assumed that any vehicle is available for rent. But II is obviously implicit; whenever an advertisement is made it is assumed that people will respond to it.

29. **Answer: B**

Solution

I is definitely not mentioned in the advertisement. II is implicit, otherwise Company A wouldn't have given the advertisements.

30. **Answer: A**

Solution

Unless the sale of all radio sets manufactured in India was known, the statement could not have been made. Hence I is implicit. II is not implicit because we do not know about manufacturing; we know only about sales. X brand has the largest sale but it may not be the largest manufacturer of radio sets. Maybe Y company manufactures more sets than X does but it exports all its sets. In that case Y is a bigger manufacturer but its sale in India would be lesser than that of X.


Exercise 3

1. **Answer: D**

Solution

Considering the nature of problem, course of action I is not necessary. Again, it is mentioned that water supply is disrupted due to loss of water owing to leakage in pipes supplying water. Thus, reason for disruption of water supply is known. Then, what is the need of setting-up of fact-finding mission. So, both course of action do not follow.

2. **Answer: E**

Solution

Explanations: Both the courses of action are suitable for pursuing. In case of outbreak of dengue adequate supply of drugs is necessary. Again the people should use mosquito repellants and keep their premises clean to check breeding of mosquitoes.

3. **Answer: A**

Solution

Only course of Action I seems to be suitable for pursuing. Course of Action II is not suitable course of action.

4. **Answer: E**

Solution

Both course of actions are suitable.

5. **Answer: D**

Solution

1st action is not a judicious step in dealing such problem. But putting a complete ban cannot be helpful in solving the problem by way of preventing from such exposures. Hence neither course of action follows.

6. **Answer: D**

Solution

- I. Doesn't follow: The statement aims at unemployment which can have two reasons: Careless graduates or incompetence of the mentioned university. Autonomy cannot be given to deploy changes in the course content so that students start getting jobs. Getting jobs is not the responsibility of the university, it's only education they have to think about.
- II. Doesn't follow: It is an irrelevant course of action. It will over shadow the problems of Indian universities, and not directly solve them."

7. **Answer: B**

Solution

- I. Doesn't follow: The statement shows damage to standing crops which could result in lack of food supply. The immediate and right course of action needs to focus on food. Election is not the priority.
- II. Follows: Relevant course of action which is directly associated to the problem and would take care of probable food scarcity in the future.

8. **Answer: A**

Solution

- I. Follows: It is probably, one of the very few actions of the government which can be taken immediately and would prevent the problem from recurring in the future. Transparency would mean that consumers would get account of their usage through any medium.
- II. Doesn't follow: It is an extreme course of action. If few people lodge a complaint against any telephone company, the company cannot be restricted, which provides service to millions of consumers.

9. **Answer: B**

Solution

- I. Doesn't follow: It is an extreme course of action. The problem is with local schools, for that "all" school's facility cannot be stopped.
- II. Follow: It is relevant, and would be preventive in future. No doubt, the implementation of such a system throughout the country would take time, but action to initiate it, can be taken immediately.

10. **Answer: A**

Solution

- I. Follows: It is relevant and can be initialized immediately. It would recover their population in the coming years.
- II. Doesn't Follow: By enlisting, it would mean to hire locals on a payable basis. Since there is no reasonable proof that this action would be beneficial, it cannot be implemented. The locals cannot be trusted with such a responsibility.

11. **Answer: E**

Solution

- I. Follows: Increase in accidents "constantly" shows the intensity of the problem. One of the major reasons of road accidents is lack of maintenance of vehicles, against which stringent norms are relevant and preventive in future.



- II. Follows: Severely punishing the traffic violators is justified as it is a matter of life and death. Both the course of actions can be immediately implemented.
12. **Answer: D**
Solution
 I. Doesn't follow: It is extreme and unjustified. Despite the good economic progress tax cannot be extracted from the wealthy people.
 II. Doesn't follow: Introducing free meals is justified, but by making education "compulsory" the course of action weakens as education is not a problem shown in the statement.
13. **Answer: A**
Solution
 I. Follows: Encouraging people (not forcing them) to share vehicles (among people of work places) is totally relevant and practical. With minimal effort good response from the people can be expected, which would result in lesser traffic.
 II. Doesn't Follow: It is an extreme course of action. "Heavy" taxes are not justified. It would not be a practical and feasible decision of making the product available and then imposing higher taxes on them.
14. **Answer: B**
Solution
 I. Doesn't follow: Shifting "all" industries outside the cities is an extreme course of action. Industries like banking, food, education, entertainment do not cause pollution.
 II. Follows: It is a long term action, which is justified as pollution is a long term problem. "All" is justified as vehicles in public domain are in the control of government. Such a step has to be taken for the welfare of the people.
15. **Answer: D**
Solution
 Doesn't follow: It is irrelevant as the college cannot take away the freedom of students to act fashionably in colleges. Only action they can take is, if anything is done against discipline or any hindrance is created against the education system.
16. **Answer: A**
Solution
 Both follow, I can remedy the problem to some extent in the short term, II is illogical since people cannot change holiday dates to a time when they are not free. They do it the other way round i.e. book holidays when they have the time..
17. **Answer: B**
Solution
 I is extreme and is difficult to implement in the short term. II has direct impact and is preventive in nature.
18. **Answer: D**
Solution
 Both are extreme actions.
19. **Answer: E**
Solution
 Both have immediate and direct impact.
20. **Answer: B**
Solution
 I is irrelevant, II is immediate and direct.
21. **Answer: B**
Solution
 I is irrelevant, II is immediate and direct.
22. **Answer: E**
Solution
 Both are direct and relevant
23. **Answer: B**
Solution
 I is not relevant and objectives cannot be changed for short term problems, II is direct and relevant.
24. **Answer: D**
Solution
 Both are extreme course of action, so, both can't be followed.
25. **Answer: E**
Solution
 Both follow as they are relevant.
26. **Answer: C**
Solution
 Either course of action follows but not at the same time.
27. **Answer: D**
Solution
 I is not relevant, II does not have any impact rather it is going to worsen the problem.
28. **Answer: E**
Solution
 Both follow as they are immediate, direct and relevant.
29. **Answer: D**
Solution



I is an action without sufficient proof, II is not directly related.

30. **Answer: D**

Solution

Neither is relevant to the statement.

Exercise 4

1. **Answer: B**

Solution

only II follows because we can say 95% marks is definitely a good marks but I not follows because we don't know about topper's mark, it may be greater than 95% marks.

2. **Answer: D**

Solution

Neither I nor II is follows. There is no relation between the quality/ambience with cost.

3. **Answer: A**

Solution

Only one follows, I follow as it is directly implied in the question.. Conclusion II doesn't follow because it is a generic statement without a description of what a complete man entails.

4. **Answer: B**

Solution

Only II conclusion follow, but can't say that all thick leaves require little water so I is not follows.

5. **Answer: D**

Solution

Conclusion I is invalid, as it goes beyond the information provided and assumes the presence of fewer options in the past.

Conclusion II is invalid, as it goes beyond the information provided and assumes the absence of desire in the past to influence destiny.

6. **Answer: B**

Solution

II follows because in the statement clearly talking about fuel saving but not given any clue about transportation by sea is cheaper than bus.

7. **Answer: E**

Solution

Both follows, the statement clearly mentioned about price and quality

8. **Answer: E**

Solution

Conclusion I is valid, as it aligns with the statement's indication that natural gifts need nurturing and care. Conclusion II is valid, as it aligns with the statement's emphasis on continuous practice and improvement, regardless of the initial quality of one's voice.

9. **Answer: D**


Solution

Conclusion I is invalid, as it goes beyond the information provided and assumes that all wise persons are boring.
 Conclusion II is invalid, as it goes beyond the information provided and assumes that all wise persons are wranglers.

10. **Answer: B**

Solution

Conclusion I is invalid, as it goes beyond the information provided and assumes a judgment about the suitability or appropriateness of the national standard.
 Conclusion II is valid, as it aligns with the statement's indication that the state's health system is taking adequate care by providing a higher rate of bed availability.

11. **Answer: B**

Solution

Conclusion I is invalid, as it goes beyond the information provided and assumes the citizens' preference without any direct evidence.
 Conclusion II is valid, as it aligns with the statement's indication of growing international opposition, which may stem from a desire to retain power.

12. **Answer: E**

Solution

Conclusion I is valid, as it aligns with the statement's indication that Germany previously had to import brass due to the shortage.
 Conclusion II is valid, as it aligns with the statement's implication that with the achieved self-sufficiency in brass, Germany has the potential to become a foreign exchange earner.

13. **Answer: D**

Solution

Neither I nor II follows statement is not talking about scarcity of mangoes.

14. **Answer: E**

Solution

Conclusion I is valid, as it aligns with the notion that every person will eventually face death.
 Conclusion II is valid, as it aligns with the idea that death is unpredictable and can happen at any time.

15. **Answer: B**

Solution

Conclusion I is invalid, as it goes beyond the information provided and assumes a judgment about the overall excitement or dullness of life based on facing problems.

Conclusion II is valid, as it aligns with the statement's indication that in order to escape from problems, having solutions or strategies is crucial.

16. **Answer: D**

Solution

I. This is not mandatory that the employees don't have any additional income beside salary, because it's not mentioned in statement. II. This is also beyond from statement. Statement is not talking about anybody wants senior officers to declare their income.

17. **Answer: B**

Solution

Conclusion I is invalid, as it goes beyond the information provided and assumes an urgency not explicitly mentioned in the statement.
 Conclusion II is valid, as it aligns with the statement, which indicates that both India and Russia have core competence in aeronautical engineering and space exploration.

18. **Answer: E**

Solution

Not much has been done, this means it is a new field. And wind energy has vast potential, so it can solve our energy problems.

19. **Answer: E**

Solution

Both follows, according to the statement monitoring is an important part of planning of social level part program's and all the information according statement both conclusion should be follows.

20. **Answer: B**

Solution

only conclusion II is true clearly indicating in statement. I is not related to statement.

21. **Answer: E**

Solution

Both follows (clearly mentioned in statement).

22. **Answer: D**

Solution

Neither I nor II. The statement does not provide any information regarding the percentage of fast bowlers in the team, nor does it mention that the opener was a fast bowler.

23. **Answer: C**

Solution



Either crude oil should be imported or demand should be reduced. According to the statement which clearly mentioned that demand of crude oil is increasing than production.

24. **Answer: D**

Solution

Neither I nor II follows (clearly not related to above statement)

25. **Answer: D**

Solution

Neither I nor II follows because the conclusion matter is not mentioned in the statement

26. **Answer: D**

Solution

Neither I nor II follows because the statement does not talking about selected Candidate its talking about only the eligibility criteria.

27. **Answer: B**

Solution

All companies are trying to be number one.

28. **Answer: E**

Solution

According to the statement, Government has spoiled financial institutions by appointing bureaucrats as Directors. This means that only those persons should be appointed as Directors who are experts in finance and are acquainted with the financial work of the institute. So, both I and II follow.

29. **Answer: A**

Solution

According to the statement, funding is necessary to improve quality and India is allocating funds to education. This means that quality of education will improve in India. So, I follows. But funding alone is sufficient to enhance quality, is not true. So, II does not follow.

30. **Answer: B**

Solution

That more emphasis should be laid on productivity areas instead of sciences does not mean that the country has achieved sufficient progress in sciences. But it implies that productivity factor was previously being neglected. So, II follows while I does not.

Exercise 5

1. **Answer: B**

Solution

Direct Relationship:

Due to the substantial increase in temperature during this summer, crops suffered significant damage, resulting in a subsequent rise in prices.

2. **Answer: A**

Solution

Direct Relationship:

As a result of the police resorting to a lathi charge on the large unlawful gathering, the citizen's forum organized a strike in protest against the police atrocities.

3. **Answer: B**

Solution

Direct Relationship:

Due to the persistent rise in the number of asthma cases, the civic authority has made the decision to actively pursue pollution reduction in the upcoming months.

4. **Answer: E**

Solution

No Direct Relationship

There is uncertainty regarding whether the two incidents occurred in the same location. Additionally, the reason behind the nighttime vigil conducted by the citizens in the locality remains unknown. Both can be effects of a common cause, i.e. house breakers

5. **Answer: B**

Solution

Direct Relationship

As a result of the petition signed by the university's teachers, the authority implemented a ban on mobile phones within the premises of all affiliated colleges.

6. **Answer: B**

Solution

Direct Relationship

The agitation led by parents of students in unaided institutions last year resulted in a reduction of fees in those institutions this year.

7. **Answer: E**

Solution

No Direct Relationship.

Both can be effects of a common cause, i.e. A tsunami, typhoon, or any other natural calamity.

8. **Answer: D**

**Solution**

No Direct Relationship can be obtained

"They can be effects of independent causes.

Both effects are independent and possibly cannot have the same cause to their origin.

The students' diligent efforts likely contributed to their positive academic outcomes. Meanwhile, the teachers' decision to change schools may have been influenced by various factors that left them dissatisfied."

9. **Answer: A**

Solution

Direct Relationship

The high-income group composition of the locality's citizens has resulted in increased sales at the local supermarket.

10. **Answer: C**

Solution

No Direct Relationship

"It may appear that the reduction in patients with waterborne diseases is a result of the opening of new hospitals. However, the opening of hospitals does not directly decrease the number of patients; instead, it leads to an increase in the number of patients receiving proper treatment.

Since II statement is long term it has to be a cause.

Therefore, (d) and (e) also get eliminated.

Most possible answer Independent cause."

11. **Answer: B**

Solution

Direct Relationship

The significant increase in the literacy rate over the past four years can be attributed to the successful implementation of an extensive training program conducted by the district administration for the workers engaged in the literacy drive.

12. **Answer: B**

Solution

Direct Relationship

First one is related to the construction of railway lines and the second one is related to air travel. Passengers in both the cases are from different fields having different causes. Therefore, answer will be D.

13. **Answer: E**

Solution

No Direct Relationship

"It is a generally accepted fact that the power

requirements of urban areas are prioritized over rural and semi-urban areas. Therefore, it is unlikely that the problem of load shedding in rural and semi-urban areas would directly result in load shedding in urban areas in the future.

These are effects of a common cause, i.e. Load"

14. **Answer: D**

Solution

No Direct Relationship

"Both are effects of independent causes.

Both cannot be effects of a common cause, as calling off a strike and calling on a strike cannot have the same cause."

15. **Answer: A**

Solution

Direct Relationship

As a result of the school authority's request for students to attend special classes on Sundays, parents have withdrawn their children from private tutoring sessions.

16. **Answer: B**

Solution

Direct Relationship

The government's reduction in the procurement price of Kharif crops for the upcoming months has influenced the farmers' decision not to sell their Kharif crops to the government.

17. **Answer: B**

Solution

Direct Relationship

Due to the unavailability of information related to primary education to the general public in the past, the government has decided to make all this information accessible to them.

18. **Answer: A**

Solution

Direct Relationship

The fast-paced, demanding, and diverse nature of life often leads to stressful situations, which in turn affects the increase in suicide cases among teenagers.

19. **Answer: E**

Solution

No Direct Relationship

While it may initially appear that a large number of young unemployed individuals applied for the manager's position, it is doubtful that unemployed youth would



typically pursue such a high-profile job that usually requires experienced professionals. Both can be effects of common causes such as unemployment.

20. **Answer: D**

Solution

No Direct Relationship

The closure of schools for a significant portion of the week may be attributed to factors such as inclement weather or scheduled holidays. The decision of many parents to withdraw their children from local schools is likely due to more long-term causes, such as the school's poor reputation or unsatisfactory academic performance. Both are effects of independent causes.

21. **Answer: B**

Solution

Direct Relationship

Due to the police's inability to apprehend the culprits, the incidents of atrocities against women have increased.

22. **Answer: D**

Solution

No Direct Relationship

They are effects of independent causes.

Both cannot have the same cause as they are trends of different markets."

23. **Answer: A**

Solution

Direct Relationship

The import of a large quantity of sugar by the government has led to a decrease in sugar prices in the domestic market.

24. **Answer: D**

Solution

No Direct Relationship

Since tea and coffee are different beverages and the concerned markets are also different, they cannot be effects of common cause. They are effects of independent causes.

25. **Answer: E**

Solution

No Direct Relationship

Since both are short term and sudden changes, they can be effects of a common cause such as excessive rainfall.

26. **Answer: D**

Solution

Both statements show similar results but there isn't any common cause behind cut off percentage for admission and year performance of students in Xth final exam so answer will be D.

27. **Answer: A**

Solution

Due to the extremely poor conditions of the national highways, the government has allocated a substantial amount of money for their maintenance. Hence the first statement is the cause with the second being the effect.

28. **Answer: E**

Solution

Both are results from annual examinations of local schools and both are negative results so they have any common reason behind both results so the answer will be E.

29. **Answer: A**

Solution

Many people stayed indoors during the past three days due to the rain and thunder showers, so the answer will be A.

30. **Answer: B**

Solution

The sale of fat-free food products is increasing as people become increasingly mindful of their health and dietary choices, so the answer will be B.

31. **Answer: B**

Solution

Due to the government's decision to decrease the procurement price of Kharif crops from the previous month and maintain it for the next six months, the farmers have chosen not to sell their Kharif crops to the Government agencies.

32. **Answer: E**

Solution

Both the statements I and II are the effects of some common cause.

33. **Answer: E**

Solution

Both the statements are effects of some common cause.

34. **Answer: B**

Solution

Many devotees visit the shrine on Sunday. So answer will be B.

35. **Answer: B**

Solution



Due to the recent increase in duty on mid-sized cars by the government, the car manufacturing companies have subsequently raised the prices of mid-sized cars.

36. **Answer: A**

Solution

The remarkable growth of the Indian economy can be attributed to the constant improvement in the standard of living among the middle-class society.

37. **Answer: D**

Solution

Both the statements I and II are effects of independent causes.

38. **Answer: D**

Solution

Both the statements I and II are effects of independent causes.

39. **Answer: A**

Solution

As a result of a large truck overturning in the middle of the road the previous night, the police took the measure of cordoning off the entire area in the locality the following morning for a duration of half a day.

40. **Answer: B**

Solution

With the increasing awareness of health in society, specifically among the middle-aged group of individuals, the significance of yoga and exercise is being recognized by all sections of society.

Exercise 6

1. **Answer: B**

Solution

- A. If safety-lever-equipped lighters are more expensive than lighters that are not so equipped, fewer lighters might be sold. This would most likely afford children less access to lighters, thus giving them less opportunity to start fires with them.
- B. **Correct.** This statement properly identifies a point that logically completes the argument: it explains why children are likely to have access to lighters equipped with safety levers.
- C. The speed with which fires are extinguished does not have any bearing on the number of fires that are started.
- D. This provides a reason to believe that the number of fires started by children will most likely decrease, rather than stay the same: fewer children will be able to operate the lighters, and thus fewer fires are likely to be started.
- E. This information about how many fires were started by children before safety levers were required does not have any bearing on the question of how many fires are likely to be started by children now that the safety levers are required.
- The correct answer is B.

2. **Answer: B**

Solution

- A. Expensive repairs are an argument against, not for, ground transportation.
- B. **Correct.** This statement properly identifies evidence that supports the plan.
- C. Rural travelers are not included in this proposal, which addresses travel between major cities.
- D. New airports covering the same routes are a threat to the plan.
- E. The information that the airports are congested because of long-distance travelers, rather than those heading to destinations within 500 miles, argues against the proposal.
- The correct answer is B.

3. **Answer: E**

Solution

- A. This speaks to whether the data obtained from the radiation plan will be useful to those who wish to



monitor people's television habits, not to whether the monitoring system will produce adverse health effects.

- B. This is tangentially related to the dispute, for it could be said that if reflected waves of radiomagnetic radiation were in fact dangerous, radar speed monitors would never have been approved for use. But since no information is given about whether the amount of radiation to which people are exposed by radar speed monitors is comparable to the amount to which they would be exposed by the proposed television system, the information given would not help to resolve the dispute.
- C. It would be useful to know whether the health effects of the proposed system have been investigated through trials of the system. But merely knowing whether the system has been tried out in various areas of the country or in only a single area would not in itself help in determining how likely the system is to produce adverse health effects.
- D. The uses to which the viewership data will be put are unrelated to the question of whether the proposed system will have adverse health effects.
- E. **Correct.** This statement properly identifies an issue that, if resolved, would help to determine the health effects of the proposed system.
- The correct answer is E.

4. **Answer: A**

Solution

- A. **Correct.** This statement properly identifies a serious problem with historical costing.
- B. Because historical costing involves making a price adjustment based on the most recent inflation rate, the fact that inflation rates have varied is not a weakness of the method.
- C. Presumably the cost of materials was factored into the previous year's contractual price, and the percentage increase allowed by historical costing will likely reflect any increases in the cost of materials.
- D. Taxpayers may question the amount spent on military contracts even if the contracts are priced using an economically sound method.
- E. The contract is for standard weapons only; innovative weapons are not discussed.
- The correct answer is A.

5. **Answer: C**

Solution

- A. An increase in fares might be a reasonable explanation for a decrease in ridership, but not for an increase.
- B. The mayor's decision to ride the bus sets a good example for citizens, so this would tend to strengthen rather than weaken support for the conclusion.
- C. **Correct.** This statement properly identifies an explanation that weakens support for the conclusion.
- D. If more buses were running, then more seats would be available for people traveling into midtown. Ruling out this scenario helps strengthen, not weaken, support for the conclusion.
- E. Passengers perceive bus service to be the same, so better service can be eliminated as a possible cause of the increased ridership.
- The correct answer is C.

6. **Answer: B**

Solution

- A. This plan might raise Patrick's income slightly, because he and the neighbor might pay out less in costs if they pool their resources. But this plan would have no effect on the problem that unpredictable absences pose for Patrick's weekly income.
- B. **Correct.** This statement properly identifies a plan that would most likely keep Patrick's income adequate (he would probably receive approximately the same amount of money per child as he does now, and uniform (he would receive the money regardless of whether a child was present or absent).
- C. While this plan might somewhat mitigate the unpredictability in Patrick's income that results from sick children's absences—because parents would be less likely to keep sick children at home—it would increase Patrick's costs. Paying a helper and investing in different facilities would reduce Patrick's income and might thus result in that income being inadequate.
- D. Under this plan, if we assume that parents did not balk at the increase in Patrick's hourly rate and find alternative child care, Patrick's income would most likely be adequate. But this plan would not help make Patrick's weekly income uniform. His income would continue to fluctuate when children are absent.



Remember, there are two goals with regard to Patrick's income: adequacy and uniformity.

- E. This plan might increase Patrick's income, in that he might be paid for more hours of child care each week. The goals here, however, are to make Patrick's weekly income both adequate and uniform, and this plan does not address the issue of uniformity.

The correct answer is B.

7. **Answer: D**

Solution

- A. The researcher does not distinguish between high and normal levels of immune-system activity, so this assumption is not needed.
- B. The researcher's inference is not related to the effects of mental illness.
- C. Immune-system activity could protect mental health without offering total prevention of mental illness; this assumption is not needed.
- D. **Correct.** This statement properly identifies the researcher's underlying assumption that mental illness does not decrease immune system activity.
- E. Since different treatments are not discussed, any assumption about them is unnecessary.

The correct answer is D.

8. **Answer: A**

Solution

- A. **Correct.** This statement properly identifies a basis for explaining the pattern of many species becoming extinct simultaneously.
- B. This explanation of selective extinction does not explain how many species become extinct at the same time.
- C. This explanation addresses only some species, not many species.
- D. The passage is based on what the fossil record suggests; more recent times, having no fossil record, are outside the consideration of the passage.
- E. Indicating which species are least likely to become extinct does not explain a pattern of simultaneous extinction of many species.

The correct answer is A.

9. **Answer: A**

Solution

- A. **Correct.** This statement properly identifies a factor that would support a prediction of the plan's success.

- B. If dishes made with SPK004 look different than traditional sweet potato dishes in the region do, people might be less likely to eat those dishes; in such a situation, the plan's success would be less likely, rather than more likely.
- C. It is SPK004's beta-carotene content relative to the beta-carotene content of the sweet potatoes currently grown in the region that is relevant here, so it does not matter if there are other varieties of sweet potato that are richer in beta-carotene than SPK004 is.
- D. This suggests that switching from currently grown sweet potatoes to SPK004 could negatively affect nutrition in the region; this undermines, rather than supports, the prediction that the plan to improve nutrition will succeed.
- E. These other vegetables, despite their beta-carotene content being higher than that of the currently cultivated varieties of sweet potato, are clearly not sufficient to prevent a vitamin-A deficiency in the region. This information does nothing to support the prediction that encouraging farmers to plant SPK004 will help to meet those beta-carotene needs.

The correct answer is A.

10. **Answer: B**

Solution

- A. The immediacy of adopting controls does not prevent the controls from being overly restrictive.
- B. **Correct.** This statement properly identifies the fact that controls on harmless effluents would be excessively restrictive and so should be avoided.
- C. Avoiding unnecessary restrictions involves analyzing the quality of the effluents, not the composition of the countries favoring the restrictions.
- D. It is not necessary to prove that all of a pollutant reaches the North Sea. It is necessary to prove only that some of it does.
- E. The environmental damage that has already been caused is outside the scope of the restrictions. Finding that the damage is reversible will do nothing to prevent unnecessary restrictions.

The correct answer is B.

11. **Answer: B**

Solution



- A. Because the company is unable to get lower costs on its raw materials, it is more likely to seek other ways of lowering its costs, such as reducing wages. This statement tends to support the argument.
- B. **Correct.** This statement properly identifies a factor that weakens the argument.
- C. The loss of business would only help explain why Shelby Industries is in need of a competitive edge; it indicates nothing about whether cutting employee wages is a good way to do so.
- D. Its relatively higher employee wages show only why the company might reduce wages; the support for the conclusion about gaining a competitive advantage is strengthened rather than weakened.
- E. We do not know whether this applies to either of the companies.

The correct answer is B.

12. **Answer: C**

Solution

- A. This would receive some support if there were information indicating that there was a correlation between large budget deficits and small trade deficits, but no such information is given.
- B. The passage states that reliable comparisons have been developed.
- C. **Correct.** This statement properly identifies an inference that can be drawn from the given information.
- D. The passage gives no indication as to whether either type of deficit correlates in any way with the population size of a country.
- E. Though there is no general correlation between the two kinds of deficits, it cannot be inferred that there are no countries in which both kinds of deficits are large.

The correct answer is C.

13. **Answer: C**

Solution

- A. We do not know whether these other cave paintings accurately depict the animals as having humps, so this provides no reason to think that the depictions of giant deer are accurate.
- B. Where giant deer fossils are found has no bearing on whether cave paintings of giant deer that show a hump on the animal's back are inaccurate. It could be

that this suggests that the painters responsible for the representations would not be very familiar with the species; if this were so, it would give some reason to conclude that the representations were inaccurate.

- C. **Correct.** This statement properly identifies a point that logically completes the argument. A hump would not be found as part of a giant deer's fossilized remains if the humps were fatty tissue that would not be fossilized.
- D. That the cave paintings were painted well before 16,000 years ago shows that they were executed before the giant deer became extinct, but this does not help to explain the discrepancy between the paintings' depiction of a hump on the deer's back and the fossil record's lack of such a hump. It could be that even though the cave painters coexisted with the giant deer, they were not sufficiently familiar with them to depict them accurately.
- E. That currently existing species of deer lack humps, or even that one species does have a feature resembling a hump, has little bearing on whether cave paintings in France accurately depict the giant deer as having a hump.

The correct answer is C.

14. **Answer: B**

Solution

- A. Not enough information about chemically stable insecticides is given to make a sound inference.
- B. **Correct.** This statement properly identifies an action that could extend the effectiveness of pesticide use.
- C. Gradually increasing the amount of the pesticides being used will not help the situation since the pests are already resistant to it.
- D. Continued use of pesticides is assumed as part of the argument. Since pesticides would be unnecessary for fallow fields, this suggestion is irrelevant.
- E. Breeding higher-yielding varieties of crops does nothing to extend the effectiveness of the use of pesticides.

The correct answer is B.

15. **Answer: D**

Solution

- A. The existence of biodegradable plastic does not make the town's plan to ban disposable plastic goods



unsuitable to its environmental goal, which is to reduce nonbiodegradable waste.

- B. That the local factory will increase production of biodegradable paper goods makes it more likely that a sufficient amount of such products will be available for townspeople who wish to switch from disposable plastic goods, so this does not indicate that the council's plan is ill suited for its goals.
 - C. Environmental benefits need not be immediate. Even though benefits were not perceived for several years after similar bans, the benefits did occur.
 - D. **Correct.** This statement properly identifies the problem with the council's plan.
 - E. The specific materials that go into making nonbiodegradable paper are not in question. This statement is irrelevant to the plan.
- The correct answer is D.

16. **Answer: A**
Solution

- A. **Correct.** This statement properly identifies a weakness in the proposed solution.
 - B. The increasing number of planes shows why airports are busier. Since there is no information about whether these planes are private or commercial, this statement neither casts doubt on the solution nor supports it.
 - C. This statement suggests that there are additional slots that could be allocable to commercial airlines and thus offers at least some support for the proposed solution.
 - D. The example of one airport shows that the solution may work.
 - E. The increase in length of delay shows the scope of the problem; this fact does not cast doubt on the solution.
- The correct answer is A.

17. **Answer: C**
Solution

- A. This suggests that patients might be pressuring their physicians to prescribe certain unnecessary procedures for their ailments, which in turn suggests that the panel is reviewing these procedures and denying them. But if so, then the panel is probably saving the insurance company money, so abandoning

the panel's review would not reduce the company's costs.

- B. This suggests that certain procedures that are being prescribed by physicians are not medically necessary, which in turn suggests that the panel reviewing these procedures may be denying them. If this is the case, then the panel is probably saving the insurance company a significant amount of money, so abandoning the panel's review may well increase rather than decrease the company's costs.
 - C. **Correct.** This statement properly identifies information that would help to justify the company's decision.
 - D. Even if the panel does not interfere with physicians' choices when more than one medically effective procedure is available, the panel may still be denying pay for many procedures that are not medically necessary. In such cases the panel may be saving the insurance company money, and abandoning the review process would not reduce the company's costs.
 - E. This suggests that the more expensive the procedure under review, the more expensive the panel itself is. Even so, if the panel denies payment for very expensive procedures, it may nonetheless save the company significantly more than the company has to pay to convene the panel, so abandoning the review process would not reduce the company's costs.
- The correct answer is C.

18. **Answer: A**
Solution

- A. **Correct.** This statement properly identifies a weakness in the argument.
- B. The relative prices of raw wool and raw cotton are irrelevant to price changes in raw cotton and processed cotton.
- C. One step between wholesale and retail prices is the operating cost of the retail store. If that operating cost has been constant rather than rising, it is possible that the retail prices could follow the lower wholesale prices. Thus the argument is not weakened.
- D. The argument notes that the wholesale price has fallen in the last year and that though the retail price has not yet fallen, it will inevitably fall. The argument



has already taken the lag into account and is not weakened by this statement.

- E. Harvesting costs are part of the assumed increased price of raw cotton and do not affect current retail prices.

The correct answer is A.

19. **Answer: C**

Solution

- A. No information about the speed of the analysis is given, so no such conclusion can be drawn.
- B. Although the software would likely be of benefit to banks, we cannot conclude that it will be installed in most banks because the passage doesn't rule out, e.g., that the software may be too costly or that there may be proprietary constraints.
- C. **Correct.** This statement properly identifies a conclusion that can be drawn from the passage.
- D. Although it seems reasonable to think that the software took a long time to develop, nothing in the passage justifies the claim that it took years.
- E. Nothing in the passage rules out the possibility that the software functions so well that authorized users will never be denied legitimate access to computers equipped with the software.

The correct answer is C.

20. **Answer: E**

Solution

- A. The responsiveness of venture capitalists is a point in favor of the argument, not against it.
- B. This statement about the relative importance of strategic planning and the personality of the entrepreneur does not weaken the argument because it does not address the importance of these factors in relation to financial backing.
- C. The argument concerns only successful start-up companies, so high failure rates are irrelevant.
- D. The argument deals with the success rates of start-up companies based on their sources of funding. A comparison of start-up companies in general with ongoing businesses has no bearing on the argument.
- E. **Correct.** This statement properly identifies evidence that weakens the argument.

The correct answer is E.

21. **Answer: A**

Solution

- A. **Correct.** This statement properly identifies evidence supporting the explanation.
- B. That a blow to the head can result in aphasia just as a stroke can is irrelevant to the argument. The argument is concerned with finding an explanation for the recovery of the capacity to use language, not with what other than strokes causes the loss of this capacity.
- C. This provides no evidence about whether it is the right half of the brain's developing its latent language capabilities that alleviates aphasia. It could be these patients experience no impairment of capacities controlled by the right half of the brain because the right half of the brain is completely uninvolved in stroke patients' recovery of language- use capability.
- D. Any effect that a stroke may have on the body beyond aphasia is irrelevant to the argument.
- E. That language production and language comprehension are governed by different parts of the brain indicates nothing about whether the recovery of language capabilities by stroke-related aphasia patients is explained by the right side of the brain developing those capabilities.

The correct answer is A.

22. **Answer: A**

Solution

- A. **Correct.** This statement properly identifies a weakness in the argument.
- B. The argument is about the greater availability of water if the trees are removed; it is not about what conditions are necessary for the farmers to agree to remove them. This statement does not weaken the argument.
- C. This statement suggests that certain tree species along the river tend to remove more water from the river than is typical of trees, which strengthens rather than weakens the argument.
- D. The argument concerns the greater availability of water, not the greater availability of arable land.
- E. The reason for the water allocation does not have any bearing on whether removing the trees will provide more water for irrigation.

The correct answer is A.

23. **Answer: C**

Solution



- A. The 25 percent reduction in operating costs cannot compensate for the much larger price difference, so this statement does not support the projection.
 - B. Knowing that the price of California spinach can go no lower does not help to explain how the hydroponic spinach can possibly compensate for the huge price difference between the two products.
 - C. **Correct.** This statement properly identifies a value that allows the high-priced hydroponic spinach to compete successfully with the less expensive California spinach.
 - D. The ease of shipping is an advantage shared equally by the two types of spinach.
 - E. The existence of a facility in Canada would make it less likely that the Chicago facility will be profitable, because the Canadian facility would be in competition with the Chicago facility.
- The correct answer is C.

24. **Answer: C**

Solution

- A. The higher incidence of injuries per accident in other classes of cars supports rather than weakens the advertisement's argument.
 - B. The fact that the PZ 1000 is the best selling car in its class might be explained by the fact that it is the safest car in its class, but if this has any effect on the argument at all, it would be to strengthen rather than weaken it.
 - C. **Correct.** This statement properly identifies a weakness in the advertisement's argument.
 - D. This slightly strengthens, rather than weakens, the argument.
 - E. The frequency of the reports is irrelevant to the advertisement's claim.
- The correct answer is C.

25. **Answer: B**

Solution

- A. This fact only helps indicate that there was a decline; it tells us nothing about what caused the decline.
- B. **Correct.** This statement properly identifies a point that logically completes the argument: it explains how the fossilized mastodon remains could be used to help determine what caused mastodons' extinction.

- C. The point at which mastodons became extinct is not part of this argument, which is concerned with the cause of their extinction. The only way in which this could be relevant to the issue at hand is if mastodons became extinct before humans took up hunting mastodons—but the argument includes no information on whether this was so.
 - D. Not knowing when humans began hunting mastodons would have no effect on the argument, which is concerned with how mastodon fossils, combined with knowledge about how food scarcity and hunting affect mastodon reproductive maturity, can help determine how mastodons became extinct.
 - E. This fact only shows that food scarcity may have led to mastodon's decline. It tells us nothing about whether fossilized remains can help determine whether it was food scarcity or human hunting that actually led to the decline.
- The correct answer is B.

26. **Answer: B**

Solution

- A. The editorial's argument is about the necessity of alarm boxes in the commercial district. This statement only tells us how costly those boxes are; it does not indicate that they are not necessary.
 - B. **Correct.** This statement properly identifies a weakness in the editorial's argument.
 - C. This statement is beside the point, since the argument indicates that it is not likely that the fire department will receive a telephone call regarding a fire in the commercial district.
 - D. The greater distance that the fire department must travel to the commercial district addresses the importance of response time; this point does not weaken the argument.
 - E. Alarm boxes would be more necessary, not less, if public telephones were frequently out of order, so this statement supports the editorial.
- The correct answer is B.

27. **Answer: E**

Solution

- A. A slower rate of increases in spending does not contradict the spokesperson's statement that the state has spent more than others, and it offers no information on the adequacy of the road system.



- B. The argument is about the adequacy of the road system, not about finding employees, so this point does not undermine the argument.
- C. Since the road system is not mentioned as a reason that businesses left the state or came to it, this point is irrelevant to the argument.
- D. This background information about area and population does not affect the argument about the adequacy of the road system.
- E. **Correct.** This statement properly identifies a point that undermines the spokesperson's reasoning.
The correct answer is E.

28. **Answer: B**

Solution

- A. Limiting the number of coupons awarded a year does nothing to discourage their resale.
- B. **Correct.** This statement properly identifies a limitation that makes the sale of coupons useless while maintaining the coupons' value as a reward.
- C. Limiting the time of use to weekdays does not discourage resale and makes the coupons less valuable to the airline's customers.
- D. Imposing a date by which the coupons must be used does not discourage resale and diminishes the coupons' value as a reward.
- E. Restricting the routes available does not discourage resale but does reduce the coupons' value as a reward.
The correct answer is B.

29. **Answer: C**

Solution

- A. ProTect's plan is designed to increase the number of cars equipped with car alarms. If having more cars equipped with car alarms reduces those alarms' effectivity in preventing thefts, then ProTect's plan is unlikely to achieve its goal.
- B. ProTect's claims in relation to those of other insurance companies are not relevant to whether ProTect's plan to reduce its own car-theft claims will achieve its goal.
- C. **Correct.** This statement suggests that ProTect's plan will provide an effective incentive for car owners to install antitheft devices; this statement therefore properly identifies information that indicates the plan is likely to achieve its goal.

- D. Because ProTect's plan does not involve raising the premiums it charges, restrictions on its ability to do so are irrelevant to whether that plan will achieve its goal.
- E. ProTect's plan does not distinguish among different models of car, so this statement indicates nothing about whether the proposed plan will succeed.
The correct answer is C.

30. **Answer: D**

Solution

- A. This statement modestly undermines the claims made—because it suggests that the toughened hiring standards might in fact be the primary cause of the shortage—rather than supports them.
- B. This statement modestly undermines the claims, because it is odd that more teachers with a higher educational level are entering the profession if working conditions for teachers have not improved and salaries for teachers have not kept up with those of other professions.
- C. This statement modestly undermines the first claim made in the passage.
- D. **Correct.** This statement properly identifies evidence that pay and working conditions have caused teachers to leave the profession and thus supports the claim that these factors are causes of the teacher shortage.
- E. This statement undermines the first claim made in the passage.
The correct answer is D.

31. **Answer: E**

Solution

- A. If more than 90 percent of residential fires are successfully extinguished by the individuals who live there, then no formal training appears to be necessary.
- B. The small percentage of new homes supports the builder's position; it does not weaken the argument.
- C. The argument is about sprinkler systems, not smoke detection devices.
- D. The argument is not about a comparison between fire departments and sprinkler systems.
- E. **Correct.** This statement properly identifies a weakness in the home builder's argument by showing



that the most damage occurs when no household member is present to put out the fire.

The correct answer is E.

32. **Answer: C**

Solution

- A. The high rate of premiums is a given; nothing in this statement reflects why the costs would increase further.
- B. The difficulty of diagnosing the causes of satellite failure shows one reason the costs are high; it does not show why they are increasing.
- C. **Correct.** This statement properly identifies a factor that explains why costs will continue to increase.
- D. The small number of satellites shows one reason they are expensive; it does not explain why costs would continue to increase.
- E. The inefficiencies may partially account for initial high costs; nothing in this statement explains an increase in costs.

The correct answer is C.

33. **Answer: A**

Solution

- A. **Correct.** This statement properly identifies a point supporting the hypothesis.
- B. This suggests that another factor—the wood of the panels—has a role in the paintings' deterioration. Thus it weakens the hypothesis that gesso causes the deterioration.
- C. This merely reinforces given information, that the paint itself is not responsible for the paintings' deterioration.
- D. Because this gives no information about any connection between this especially hard and nonabsorbent type of gesso and the type of gesso used under the paint in Renaissance paintings, the properties and usage of the former type of gesso are irrelevant to the question of whether gesso is responsible for the paintings' deterioration.
- E. Because we are told nothing about whether this technique of gesso application increases or decreases the likelihood that gesso will be affected by climatic change, it does not support the restorers' hypothesis.

The correct answer is A.

34. **Answer: C**

Solution

- A. Convenience is not at issue.
- B. The capacity of outlying airfields to handle commercial airlines is outside the scope of the question.
- C. **Correct.** This statement properly identifies the assumption that most of these private planes lack radar and would no longer be allowed to land at the centrally located airports.
- D. Private-plane traffic could be diverted to outlying airfields even if this statement were not true.
- E. The future of commercial airline traffic is beyond the scope of the question.

The correct answer is C.

35. **Answer: A**

Solution

- A. **Correct.** This statement properly identifies evidence that strengthens the scientists' hypothesis.
- B. The overflow's creation of breeding areas offers an alternative hypothesis; it rivals rather than strengthens the hypothesis about temperature range.
- C. These differences in lowest recorded temperatures are simply specific data-points related to the proposed cause; they do nothing to support the hypothesis.
- D. The introduction of nonnative species competing for food and space is an additional variable, and thus offers an alternative hypothesis.
- E. The rareness of certain species points to the severity of the problem, not to its cause.

The correct answer is A.

36. **Answer: D**

Solution

- A. Although it might be useful to know how the body produces these messenger molecules, it isn't necessary for the development of the proposed medication; many medications have been developed in cases where the relevant physiology is not very well understood.
- B. The greater sensitivity of some people's messenger molecules is not the issue.
- C. Pointing out long lead times does not explain a flaw in the medication itself.
- D. **Correct.** This statement properly identifies the fact that the medication is flawed because it could do harm by preventing a necessary process.



- E. The proposed medication makes no claim to alleviate asthma attacks once they have begun.

The correct answer is D.

37. **Answer: A**

Solution

- A. **Correct.** This statement properly identifies a point that logically completes the argument.
- B. This statement indicates that if the new regulation does allow more TDX on fruit that is sold, then people may end up consuming more TDX. However, it indicates nothing as to whether the regulation will in fact allow more TDX on fruit that is sold.
- C. People's consumption of fruit is irrelevant to the question of what the regulations governing the sale of that fruit allow.
- D. The question is about allowances expressed in the two regulations. The information in this statement only suggests that the older regulation was not always fully enforced; but the same may end up being true of the new regulation.
- E. This might show that the new regulation will not be harmful to consumers, even if the new regulation were to allow more TDX on fruit sold than was allowed in the 1960s. But that is irrelevant to the question at hand, which is whether the new regulation will allow more TDX on fruit than was allowed in the 1960s.

The correct answer is A.

38. **Answer: B**

Solution

- A. The freedom from anxiety enjoyed by some investors is not relevant. While risky investments are mentioned, this statement does not mention their return.
- B. **Correct.** This statement properly identifies an example that shows that riskier loans—those not backed by collateral—receive the benefit of higher interest rates.
- C. This discussion of interest rates in times of inflation does not mention potential risk or potential benefit.
- D. A single rate of interest for all investments, no matter the level of risk, contradicts the principle and so cannot possibly be an example of it.

- E. New companies are generally riskier than established ones. A lower rate of return for such riskier new companies contradicts the principle.

The correct answer is B.

39. **Answer: B**

Solution

- A. This statement does not indicate whether the increased cost will dissuade people from taking private vehicles into the city, and therefore does not indicate whether the mayor's reasoning is flawed.
- B. **Correct.** This statement properly identifies a flaw in the mayor's reasoning.
- C. Current bus riders are not relevant to the mayor's plan, which anticipates only that people currently driving private vehicles into the city will become bus riders.
- D. Many drivers may continue to commute in their private vehicles, but others might switch to buses. The mayor's plan does not anticipate a switch by all drivers.
- E. The 20 percent figure shows that most congestion is caused by vehicles entering from outside the city; this does not point out a weakness in the mayor's plan.

The correct answer is B.

40. **Answer: E**

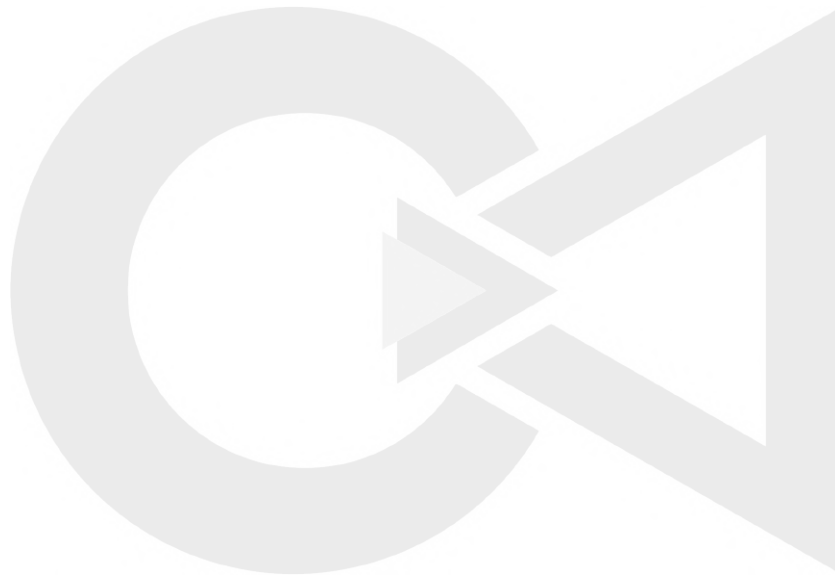
Solution

- A. Bergeron's holdings relative to other potential candidates are not relevant to the journalist's argument regarding the likelihood of Bergeron's running for governor.
- B. Whether Bergeron could have fulfilled the disclosure requirements in some other way is irrelevant to the journalist's argument, which is based on the fact that Bergeron did fulfill the disclosure requirements.
- C. It would be somewhat useful to know whether the journalist's information is reliable, but there is no way to determine whether the journalist's actual source, if it was not the election commission, is more or less reliable than the election commission. So this is not the best answer.
- D. Any changes in Bergeron's financial holdings are irrelevant to the journalist's argument, which is based on Bergeron's having fulfilled the financial disclosure requirements.



- E. **Correct.** It would be useful in evaluating the journalist's argument to know the answer to this question.

The correct answer is E.





INPUT - OUTPUT SOLUTIONS

1. Answer: C

Solution

Logic: Series are mixed with numbers and alphabets. First all numbers are arranged in descending order then alphabets in descending order. Now in every step two element changed from left number are arranged which from right alphabets are arranged.

Step I: 93 24 66 reach soft 16 pin height 46 dance
 Step II: 93 66 24 reach soft 16 pin 46 height dance
 Step III: 93 66 46 24 reach soft 16 pin height dance
 Step IV: 93 66 46 24 16 soft reach pin height dance

2. Answer: A

Solution

Refer solution of question 1.

3. Answer: E

Solution

Refer solution of question 1.

4. Answer: B

Solution

Refer solution of question 1.

5. Answer: A

Solution

Refer solution of question 1.

6. Answer: A

Solution

Logic: Machine change 2 word in each step first all alphabets are arranged in alphabetic order. Then numbers are arranged in descending order

Input: when 16 given fish 37 provide zebra 90 night 45 is 25 transfer 84

Step I: fish given when 16 37 provide zebra 90 night 45 is 25 transfer 84

Step II: fish given is night when 16 37 provide zebra 90 45 25 transfer 84

Step III: fish given is night provide transfer when 16 37 zebra 90 45 25 84

Step IV: fish given is night provide transfer when zebra 16 37 90 45 25 84

Step V: fish given is night provide transfer when zebra 90 84 16 37 45 25

Step VI: fish given is night provide transfer when zebra 90 84 45 37 16 25

Step VII: fish given is night provide transfer when zebra 90 84 45 37 25 16

7. Answer: E

Solution

Refer solution of question 6.

8. Answer: C

Solution

Refer solution of question 6.

9. Answer: A

Solution

Refer solution of question 6.

10. Answer: B

Solution

Refer solution of question 6.

11. Answer: A

Solution

Logic- The machine rearranges one word in each step. Words are arranged according to the last letter of the word in English alphabetical order from left end to right side and if the letters are same then arrange according to the first letter of the word in English alphabetical order.

Input: test popular dead stage drawing demon kick staff

Step I: dead test popular stage drawing demon kick staff

Step II: dead stage test popular drawing demon kick staff

Step III: dead stage staff test popular drawing demon kick

Step IV: dead stage staff drawing test popular demon kick

Step V: dead stage staff drawing kick test popular demon

Step VI: dead stage staff drawing kick demon test popular

Step VII: dead stage staff drawing kick demon popular test

Step VII is the last step of the rearrangement.

12. Answer: C

Solution

Refer Solution of question 11.

13. Answer: B

Solution

Refer solution of question 11.

14. Answer: D

**Solution**

Refer solution of question 11.

15. Answer: B**Solution**

Refer solution of question 11.

16. Answer: A**Solution**

In this new pattern only one word and one number is arranged in each step. Let us understand the logic behind it- In each step the words are arranged from the left end while the numbers are arranged from the right end.

Word: Words are arranged based on number of letters in the word in ascending order if same numbers of letters are there then they are arranged according to the first letter of the word in English alphabetical order.

Number: Numbers are arranged such that first all odd numbers are arranged in descending order then all even numbers are arranged in descending order.

Input: cat 48 star 39 match 57 be 24 tremble 61

Step I: be cat 48 star 39 match 24 tremble 61 57

Step II: be cat star 48 match 24 tremble 61 57 39

Step III: be cat star match 24 tremble 61 57 39 48

Step IV: be cat star match tremble 61 57 39 48 24

Step IV is the last step of given rearrangement.

17. Answer: B**Solution**

Refer solution of question 16.

18. Answer: C**Solution**

Refer solution of question 16.

19. Answer: D**Solution**

Refer solution of question 16.

20. Answer: D**Solution**

Refer solution of question 16.

21. Answer: C**Solution**

Logic: Both words and numbers are arranged in each step.

Words- Words are arranged in descending order from left end as per the number of alphabets present in each word.

Numbers- Numbers are arranged in ascending order from right end.

Input: witch 53 thousand 14 post 29 sip heaven 33

Step I: thousand witch 53 post 29 sip heaven 33 14

Step II: thousand heaven witch 53 post sip 33 14 29

Step III: thousand heaven witch post 53 sip 14 29 33

Step IV: thousand heaven witch post sip 14 29 33 53

Step IV is final step.

22. Answer: B**Solution**

Refer solution of question 21.

23. Answer: C**Solution**

Refer solution of question 21.

24. Answer: D**Solution**

Refer solution of question 21.

25. Answer: C**Solution**

Refer solution of question 21.

26. Answer: E**Solution**

From the following output it is clear that 'petition' is fourth from left in Step 3.

Hence option E is correct.

Final Output:

Input: persistent 57 pacify 22 panacea 87 pious 69
petition 13

Step1: persistent 57 22 panacea 87 pious 69 petition
pacify 313

Step2: persistent 57 87 pious 69 petition pacify 313
panacea 222

Step3: 87 pious 69 petition pacify 313 panacea 222
persistent 357

Step4: 87 pious pacify 313 panacea 222 persistent
357 petition 369

Step5: pacify 313 panacea 222 persistent 357 petition
369 pious 387

Common Explanation:

Change in Word: Change in words takes place as per the dictionary order and placed at the right end just before the number.

Change in Number: Change in numbers takes place as per the ascending order. Thereafter numbers are changed to a new number which is obtained by



application of the following rules and then shifted to the extreme right end.

Rule I: If the number is even, then place '2' at the end of the number.

Rule II: If the number is odd, then place '3' at the beginning of the number.

Note: Changes in word and number take place simultaneously in each step.

The given pattern:

Input: radical 76 reason 36 readiness 37 rise 51 rainbow 73

Step1: 76 reason readiness 37 rise 51 rainbow 73 radical 362

Step2: 76 reason readiness rise 51 73 radical 362 rainbow 337

Step3: 76 reason rise 73 radical 362 rainbow 337 readiness 351

Step4: 76 rise radical 362 rainbow 337 readiness 351 reason 373

Step5: radical 362 rainbow 337 readiness 351 reason 373 rise 762

Solution to the given input:

Input: persistent 57 pacify 22 panacea 87 pious 69 petition 13

Step1: persistent 57 22 panacea 87 pious 69 petition pacify 313

Step2: persistent 57 87 pious 69 petition pacify 313 panacea 222

Step3: 87 pious 69 petition pacify 313 panacea 222 persistent 357

Step4: 87 pious pacify 313 panacea 222 persistent 357 petition 369

Step5: pacify 313 panacea 222 persistent 357 petition 369 pious 387

27. Answer: B

Solution

From the following output it is clear that "pacify 313 panacea 222 persistent 357 petition 369 pious 387" is the final output.

Step 5: pacify 313 panacea 222 persistent 357 petition 369 pious 387

Hence option B is correct.

28. Answer: A

Solution

From the following output it is clear that the difference between the highest and the lowest numbers of step 3 is 288.

Step3: 87 pious 69 petition pacify 313

panacea 222 persistent 357

Hence option A is correct.

29. Answer: C

Solution

From the following output it is clear that '69' is second to the left of fourth element from right end in step 2.

Step 2: persistent 57 87 pious 69 petition pacify 313 panacea 222

Hence option C is correct.

30. Answer: A

Solution

From the following output it is clear that '87 pious pacify' is seen in the same sequence in step 4.

Hence option A is correct.

31. Answer: D

Solution

References:

753 cdef 651 droe 454 ghij 222 mnop 613 rstu

Inferences:

Both word & number are rearranged simultaneously.

Number logic: the sum of digits of number is taken.

Number whose sum of digits is lowest is taken and placed at first.

The words are arranged in descending order from right to left from the right end. In the first step, the words are arranged as ascending order according to the first letter of the word and so on.

Input : 753 cdef 651 droe 454 ghij 222 mnop 613 rstu

Step 1: 222 753 651 droe 454 ghij mnop 613 rstu cdef

Step 2: 613 222 753 651 454 ghij mnop rstu cdef droe

Step 3: 651 613 222 753 454 mnop rstu cdef droe

ghij

Step 4: 454 651 613 222 753 rstu cdef droe ghij mnop

Step 5: 753 454 651 613 222 cdef droe ghij mnop rstu

Step 5 is the final step

There is no such step.

Hence, option D is correct.

32. Answer: C

Solution



Step 3: 651 613 222 753 454 mnop rstu cdef droe ghij
 Hence, option C is correct.

33. Answer: C

Solution

Step 4: 454 651 613 222 753 rstu cdef droe
 ghij mnop

Hence, option C is correct.

34. Answer: E

Solution

Step 5: 753 454 651 613 222 cdef droe ghij mnop rstu
 Hence, option E is correct.

35. Answer: A

Solution

Step 3: 651 613 222 753 454 mnop rstu cdef droe ghij
 Hence, option A is correct.

36. Answer: D

Solution

Final Output:

Input: require 51 decade 22 build 10 trust 32 once 84
 shattered 45

Step I: trust require 51decade 22 build 32 once 84
 shattered 45 10

Step II: shattered trust require 51 decade build 32
 once 84 45 10 22

Step III: require shattered trust 51 decade build once
 84 45 10 22 32

Step IV: once require shattered trust decade build 84
 45 10 22 32 51

Step V: decade once require shattered trust build 84
 10 22 32 51 45

Step VI: build decade once require shattered trust 10
 22 32 51 45 84

Common Explanation:

Change in words: The words are arranged as per
 reverse dictionary order. i.e. the word that will come
 last in the dictionary is rearranged at first. The words
 are placed at extreme left end.

Change in numbers: The numbers are changed as per
 ascending order of sum of their digits. i.e. the number
 whose sum of digits is lowest will be taken first for
 rearrangement. The numbers are placed at extreme
 right end.

**Note– Change in only one word and one number
 takes place simultaneously at each step.**

37. Answer: C

Solution

51 and 32 come between trust and once in step II ,
 thus the required difference is 19.

Hence option C is correct.

38. Answer: B

Solution

Step IV: once require shattered trust decade build 84
 45 10 22 32 51

once 45 represents the elements at extreme ends in
 step IV.

Hence option B is correct.

39. Answer: A

Solution

once require shattered trust decade build 84 45 10
 22 32 51" represents the step IV.

Step IV: once require shattered trust decade build 84
 45 10 22 32 51

Hence option A is correct

40. Answer: D

Solution

The sum of and is –

Step III: require shattered trust 51decade build once
 84 45 10 22 32

8th element from the left end in step III – 84

Step VI: build decade once require shattered trust 10
 22 32 51 45 84

10th element from left end in step VI – 51

Sum = 84 + 51 = 135

41. Answer: D

Solution

We got 30 and 106, the difference = 76.

Hence, option D is correct.

Common Explanation:

Step I has been gotten by removing first and last
 letter of each word and then arranging them in
 dictionary order from left to right.

**Input: treimors ghendos wertyos stredins quediton
 bitcals**

Step I: ertyo hendo itcal reimor tredin uedito

Step II has been found by adding the associated
 number in the alphabet with each vowel. For
 instance, in 'ertyo', we will get (e = 5) + (o = 15) = 20

Step II: 20 20 10 29 14 50

Step III has been found by squaring each digit of a
 number and then adding.



Step III: 4 4 1 85 17 25

Step IV is step III in ascending order

Step IV: 1 4 4 17 25 85

Step V is sum of numbers on even position and odd position.

First number = $1 + 4 + 25 = 30$, second number = $4 + 17 + 85 = 106$

Step V: 30 106

Complete arrangement:

Input: treimors ghendos wertyos stredins quediton
bitcals

Step I: ertyo hendo itcal reimor tredin uedito

Step II: 20 20 10 29 14 50

Step III: 4 4 1 85 17 25

Step IV: 1 4 4 17 25 85

Step V: 30 106

42. Answer: B

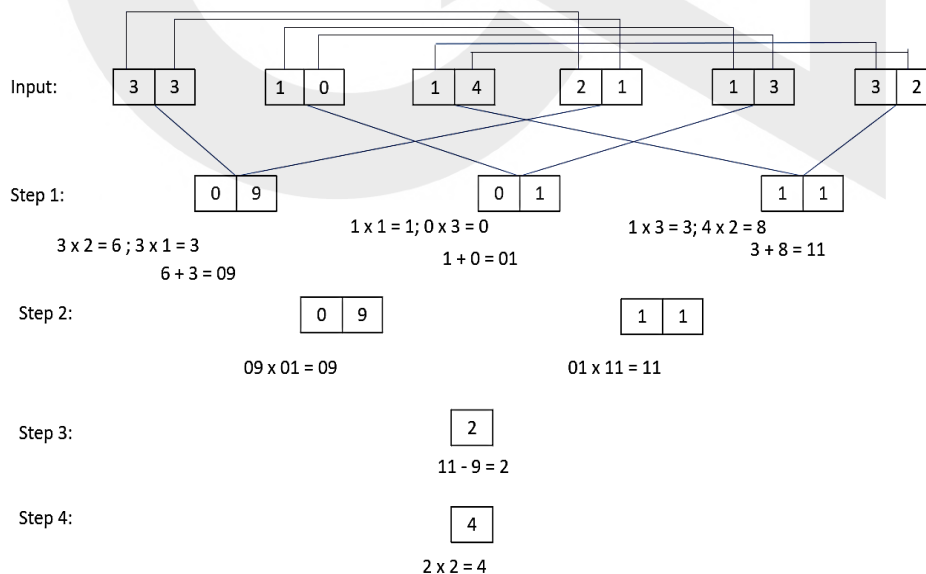
Solution

From the common explanation:

1, 17, 25 and 85 are the odd numbers. Thus there are 4 odd numbers.

Hence, option B is correct.

Final arrangement:



43. Answer: C

Solution

From the common explanation:

It has been repeated four times.

Hence, option C is correct.

44. Answer: D

Solution

From the common explanation:

There is no such word as 'temos' in step I.

Hence, option D is correct.

45. Answer: A

Solution

From the common explanation:

Highest number in step II = 50

Smallest number in step III = 1

Difference = 49

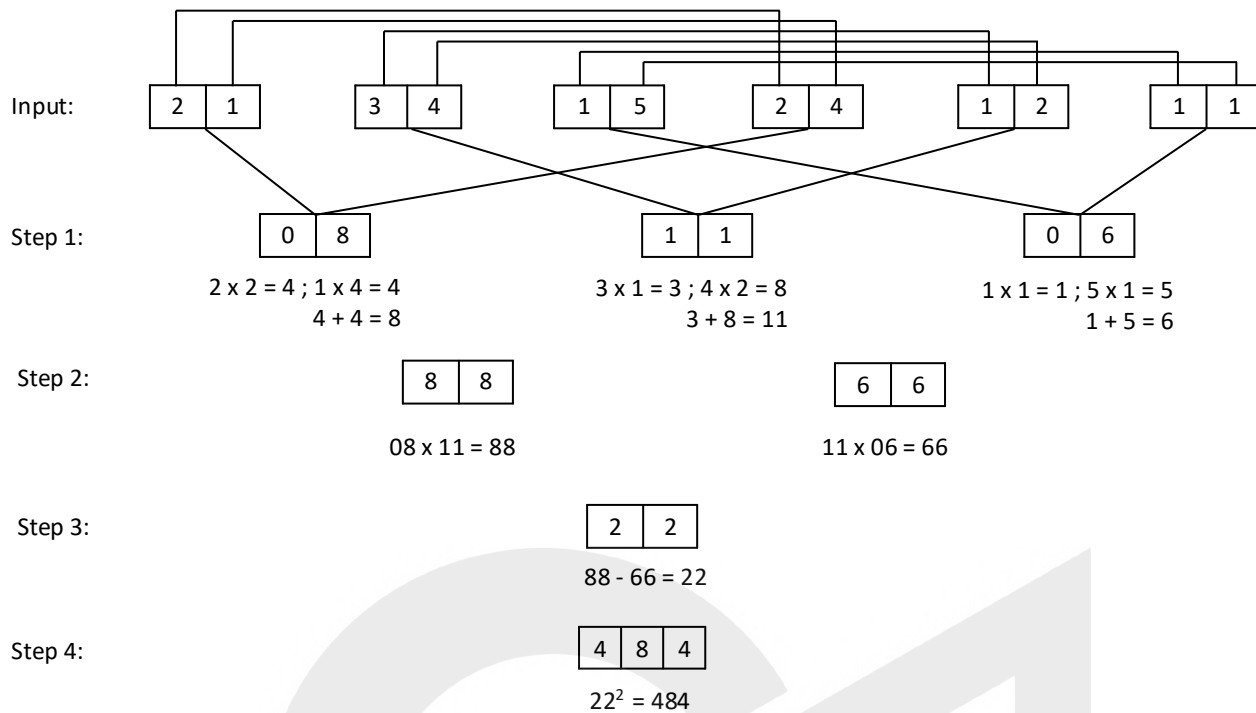
Hence, option A is correct.

46. Answer: A

Solution

2 is half of the value obtained in final step.

Hence, Option A, is the correct answer.



47. Answer: D

Solution

11 is one of the numbers obtained in step II.
 Option D, is hence the correct answer.

48. Answer: A

Solution

As, $11 - 9 = 2$.

So, the Difference between the numbers obtained in
 step II is 2.

Option A, is hence the correct answer.

49. Answer: B

Solution

11 is one of the numbers obtained in step I

Option B, is hence the correct answer.

50. Answer: B

Solution

$$9^2 + 1^2 + 11^2 = 81 + 1 + 121 = 203$$

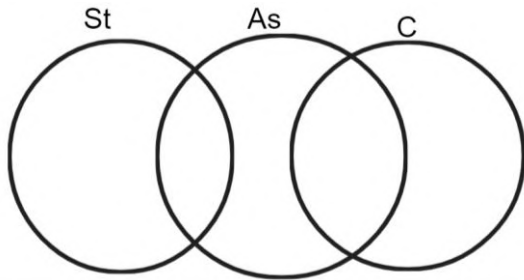
Option B, is hence the correct answer.

SYLLOGISMS SOLUTIONS

1. Answer: E

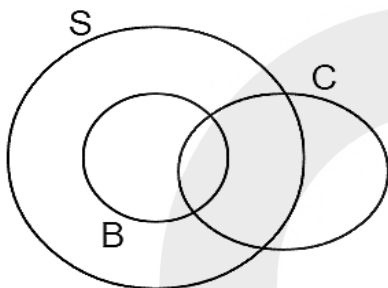
Solution

Only III



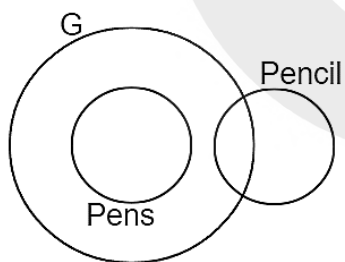
2. Answer: C

Solution



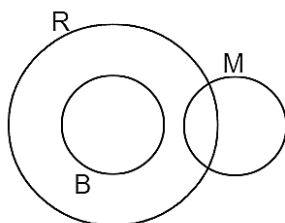
3. Answer: E

Solution

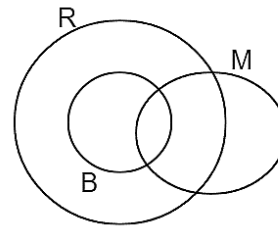


4. Answer: C

Solution

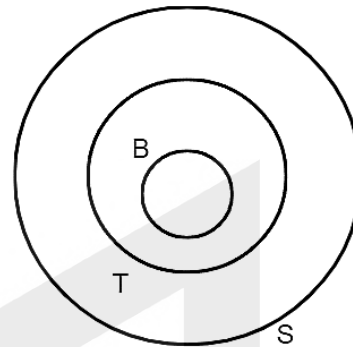


Or



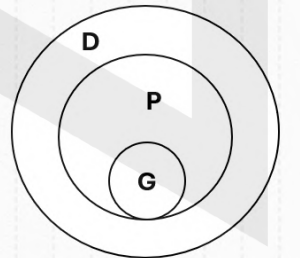
5. Answer: D

Solution



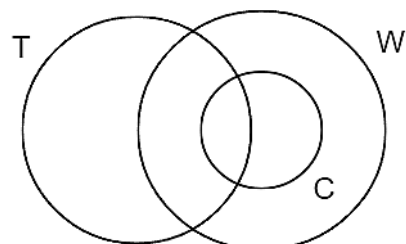
6. Answer: B

Solution



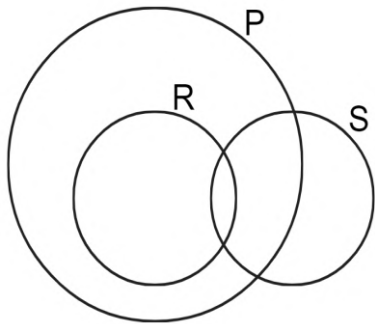
7. Answer: E

Solution

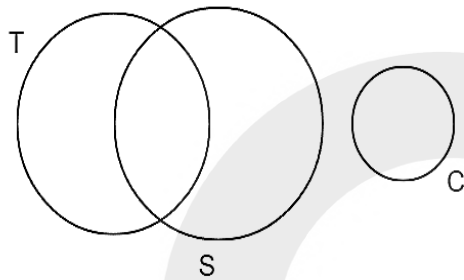


8. Answer: B

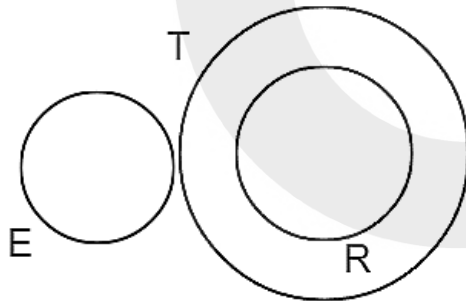
Solution



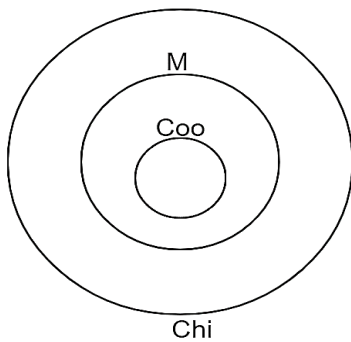
9. Answer: E
Solution



10. Answer: E
Solution

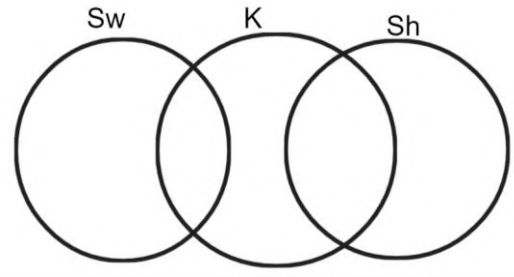


11. Answer: D
Solution

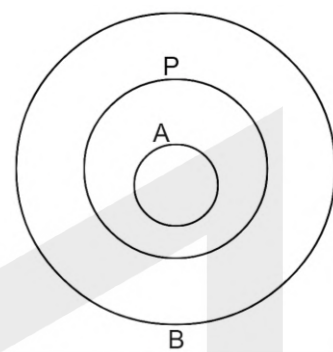


12. Answer: B

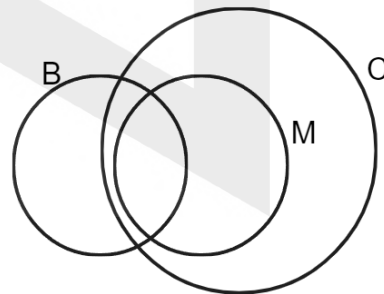
Solution



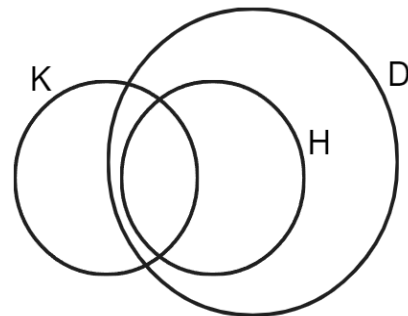
13. Answer: E
Solution



14. Answer: A
Solution

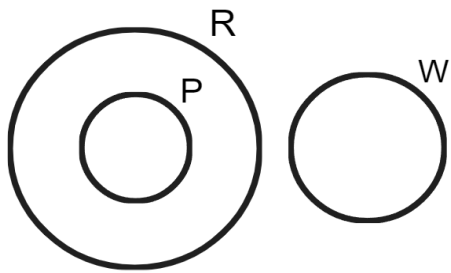


15. Answer: B
Solution



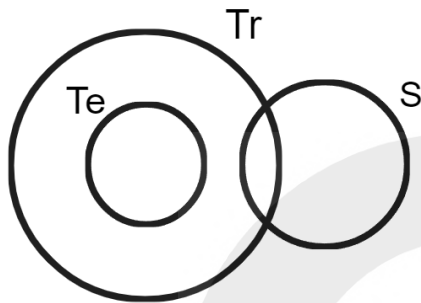
16. Answer: A

Solution



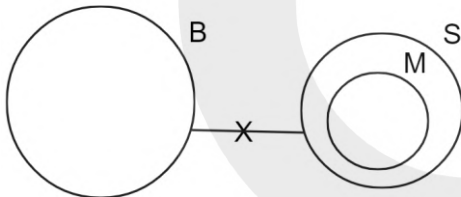
17. Answer: B

Solution



18. Answer: B

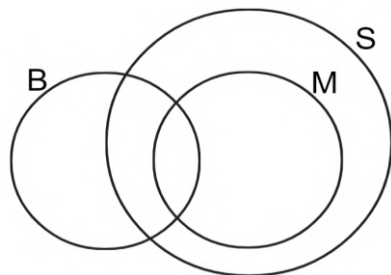
Solution



19. Answer: B

Solution

Statement I:

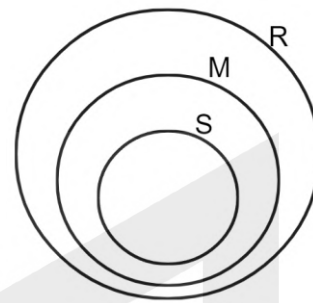


Statement II:

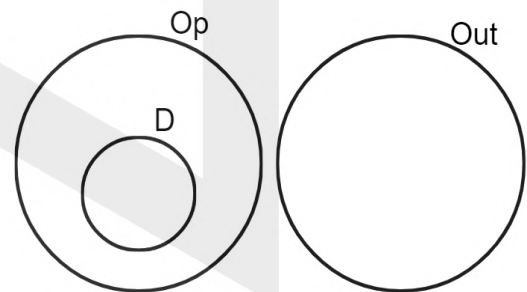
20. Answer: C

Solution

Statement I:



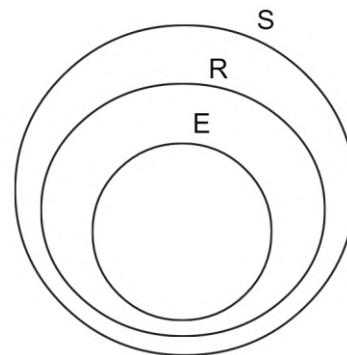
Statement II:



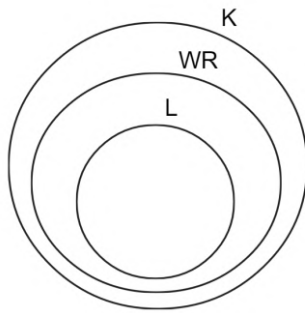
21. Answer: C

Solution

Statement I:



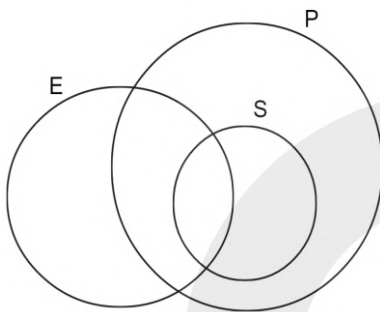
Statement III:



22. **Answer: B**

Solution

Statement II:



23. **Answer: B**

Solution

Statements:

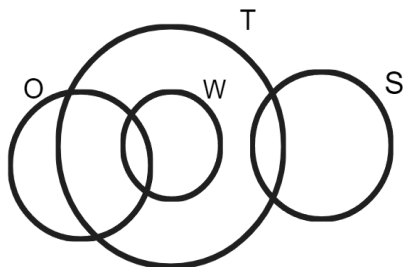
Some Ocean is Waves.

All Waves is Tide.

Some Tide is Sand.

Conclusions:

- a. Some Wave is Tide.
- b. Some Ocean may not be Wave.
- c. Some Tide maybe Wave
- d. All waves maybe Ocean
- e. All Waves maybe Sand.



Conclusion (b), (c), (d) and (e) follow.

24. **Answer: E**

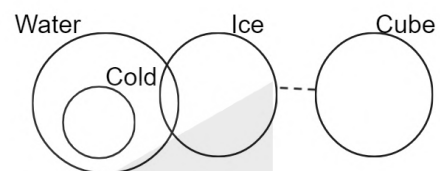
Solution

Statements:

- a. All Cold is Water.
- b. Some Water is Ice.
- c. Some Ice is not Cube.

Conclusions:

- a. Some Water is Cold.
- b. Some Ice is Water.
- c. No Cold is Cube is a possibility.
- d. Some Cube is not Water.
- e. No Cube is Water is a possibility.



Conclusion (a), (b), (c), (e) follows.

25. **Answer: E**

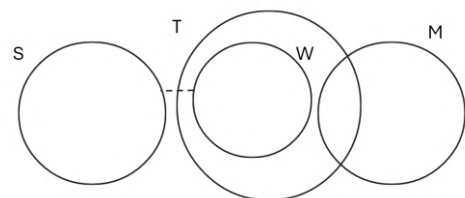
Solution

Statements:

- a. Some Sea is not Waves
- b. All Waves is Tide.
- c. Some Tide is Moon.

Conclusions:

- a. Some Moon is Tide.
- b. Some Tide is not Wave is a possibility.
- c. Some Tide is Wave.
- d. No Wave is Moon is a possibility.
- e. No Sea is Wave.



Conclusions (a), (b), (c), (d) follow.

26. **Answer: D**

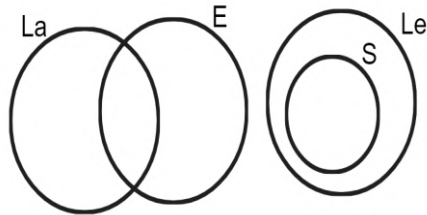
Solution

Statements:

- a. Some lashes is eyes.
- b. No eyes is specs.
- c. All specs is lens

Conclusions:

- a. Some lens is not eyes.
- b. No specs is eyes.
- c. Some eyes is lashes.
- d. Some lashes is not specs.
- e. Some lashes is specs.



Conclusions (a), (b), (c), (d) follow.

27. **Answer: B**

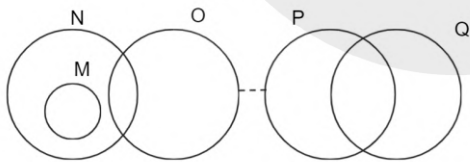
Solution

Statements:

- a. All M is N.
- b. Some N is O.
- c. Some O is not P.
- d. Some P is Q.

Conclusions:

- a. Some O maybe M.
- b. Some P is not Q.
- c. Some N is M.
- d. Some O is N.
- e. Some Q is P.



Conclusions (a), (b), (c), (d), (e) follow.

28. **Answer: D**

Solution

Statements:

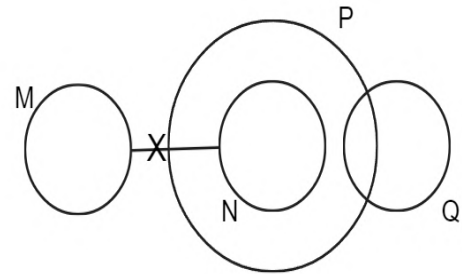
- a. No M is N.
- b. All N is P.
- c. Some P is Q.

Conclusions:

- a. Some Q is P.
- b. Some P is N.
- c. Some P is not M.

d. No N is M.

e. Some Q is M.



Conclusions (a), (b), (c), (d) follow.

29. **Answer: A**

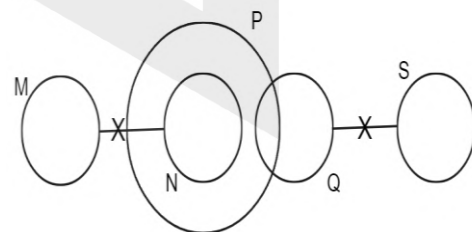
Solution

Statements:

- a. No M is N.
- b. All N is P.
- c. Some P is Q.
- d. No Q is S.

Conclusions:

- a. No S is Q.
- b. Some P is not M.
- c. Some Q is not M.
- d. All M maybe P.
- e. Some P is N.



Conclusions (a), (b), (d), (e) follow.

30. **Answer: C**

Solution

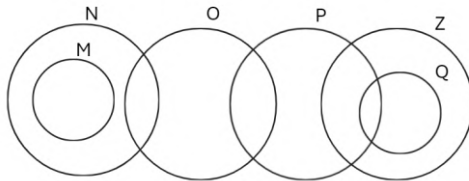
Statements:

- a. All M is N.
- b. Some N is O.
- c. Some O is not P.
- d. Some P is Q.
- e. All Q is Z.

Conclusions:

- a. All P is O.

- b. Some N is M.
 c. Some Z is P.
 d. Some Z is Q.
 e. Some O is N.



Conclusions (b), (c), (d), (e) follow.

31. **Answer: C**

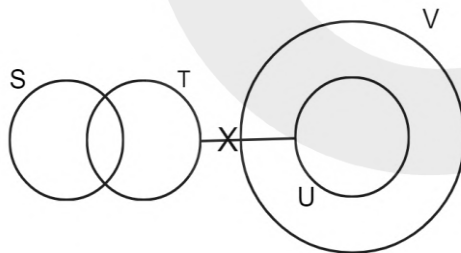
Solution

Statements:

- a. Some S is T.
 b. No T is U.
 c. All U is V.

Conclusions:

- a. Some T is not U.
 b. Some S is not U.
 c. All T is V.
 d. Some T is S.
 e. Some V is U.



Conclusions (b), (d), (e) follow.

32. **Answer: B**

Solution

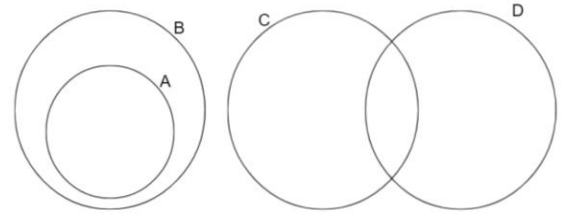
Statements:

- a. All A is B.
 b. No B is C.
 c. Some C is D.

Conclusions:

- a. Some D is B.
 b. Some A is not B.
 c. Some D is C.
 d. No D is B.

- e. None of these.



Conclusion (c) follows.

33. **Answer: A**

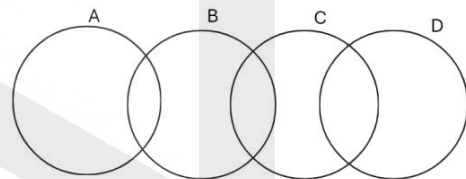
Solution

Statements:

- a. Some A is B.
 b. Some B is C.
 c. Some C is D.

Conclusions:

- a. Some D is A.
 b. Some B is D.
 c. Some C is B.
 d. No A is C.
 e. None of these.



Conclusions (c) follow.

34. **Answer: B**

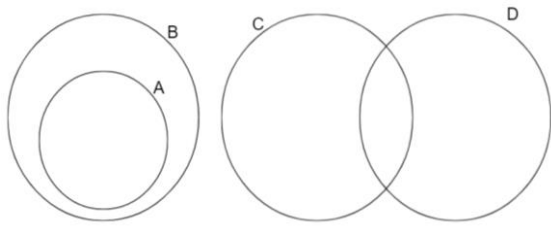
Solution

Statements:

- a. All A is B.
 b. No B is C.
 c. Some C is D.

Conclusions:

- a. Some D is not C.
 b. Some D is not B.
 c. Some A is not B.
 d. No B is A.
 e. None of these.



Conclusion (b) follows.

35. **Answer: C**

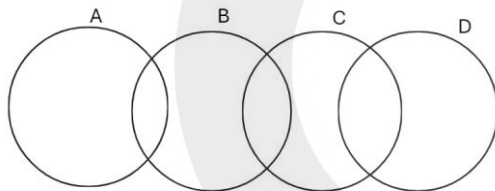
Solution

Statements:

- a. Some A is B.
- b. Some B is C.
- c. Some C is D.

Conclusions:

- a. No C is A.
- b. Some D is C.
- c. No C is B.
- d. No A is D.
- e. None of these.



Conclusion (b) follows.

36. **Answer: A**

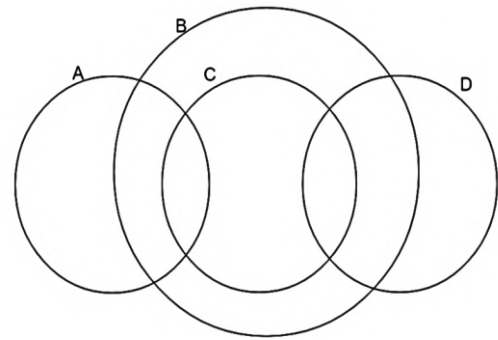
Solution

Statements:

- a. Some A is not C.
- b. All C is B.
- c. Some C is D.

Conclusions:

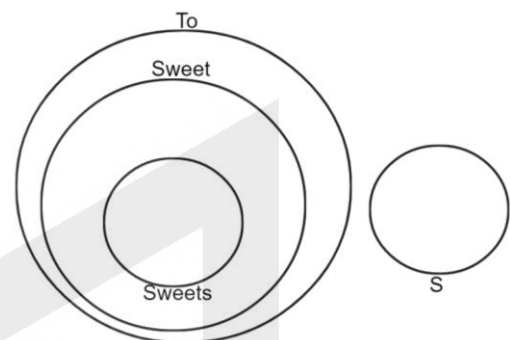
- a. No C is A.
- b. No D is C.
- c. No B is A.
- d. Some D is C.
- e. None of these.



Conclusion (d) follows.

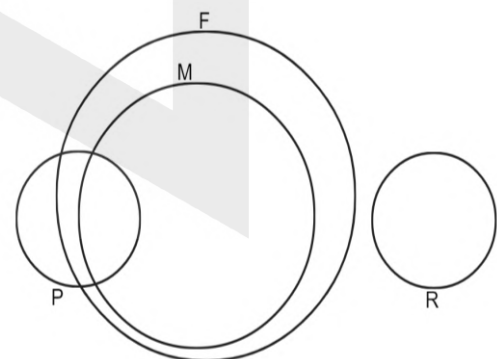
37. **Answer: E**

Solution



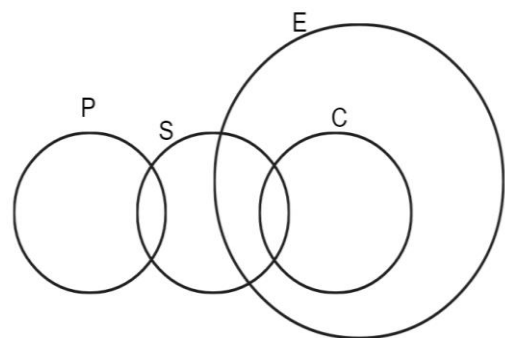
38. **Answer: D**

Solution



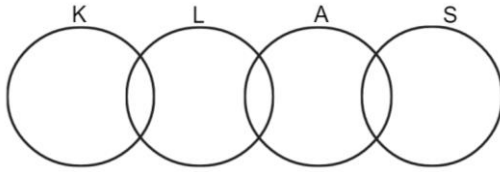
39. **Answer: D**

Solution



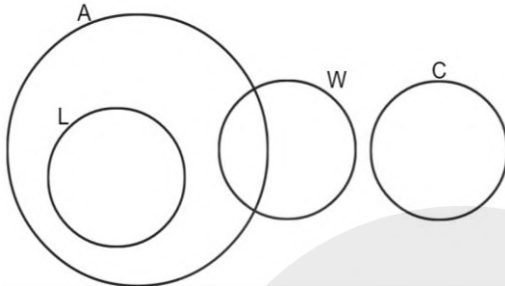
40. Answer: A

Solution



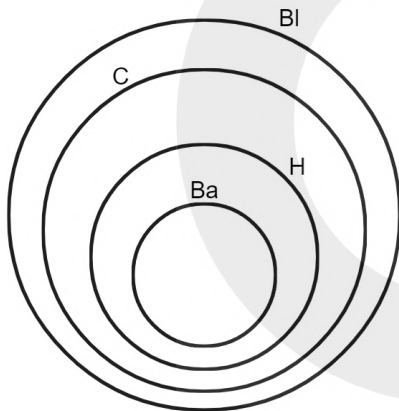
41. Answer: A

Solution



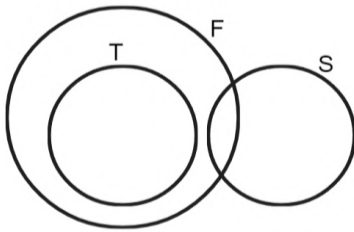
42. Answer: B

Solution



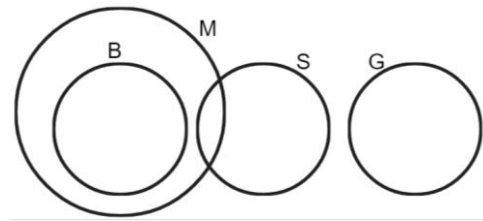
43. Answer: B

Solution



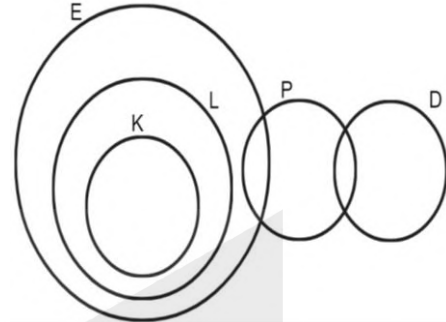
44. Answer: C

Solution



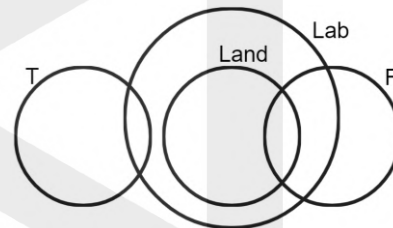
45. Answer: B

Solution



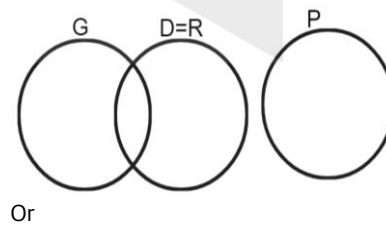
46. Answer: E

Solution

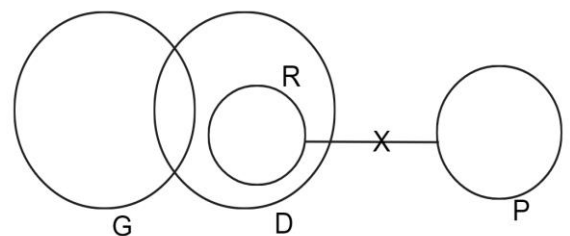


47. Answer: B

Solution

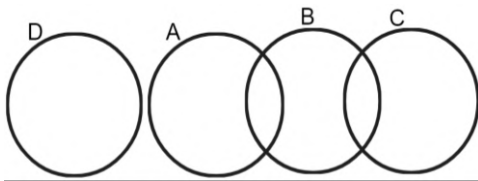


Or



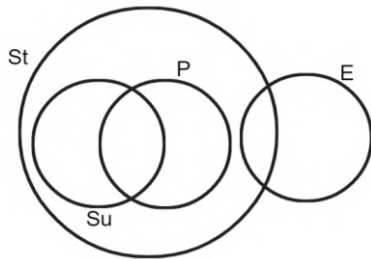
48. Answer: E

Solution



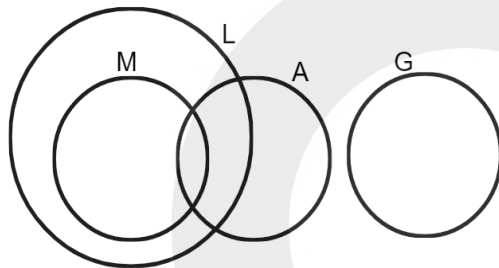
49. Answer: C

Solution



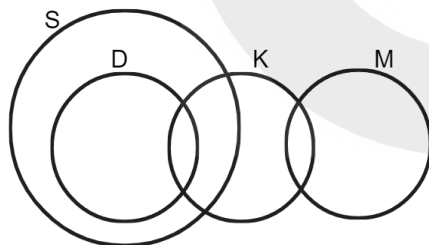
50. Answer: A

Solution



51. Answer: E

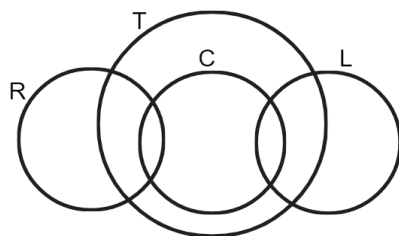
Solution



Conclusions (1) and (3) follow.

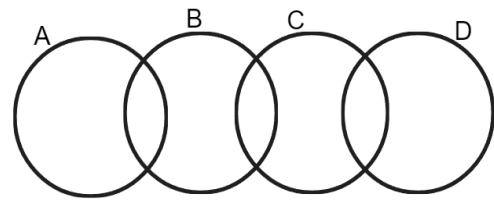
52. Answer: A

Solution



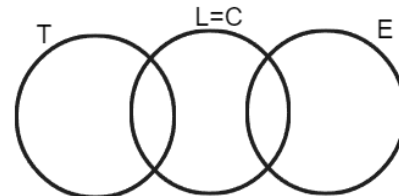
53. Answer: A

Solution



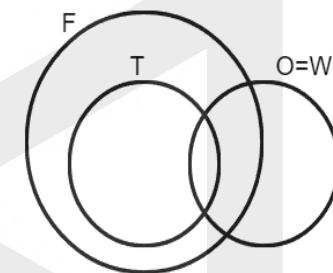
54. Answer: B

Solution



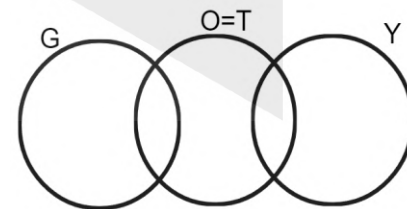
55. Answer: C

Solution



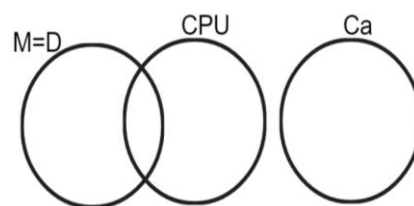
56. Answer: B

Solution



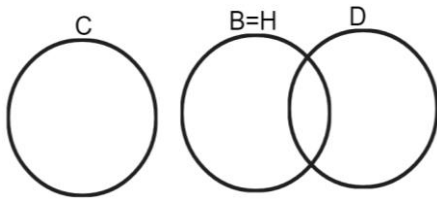
57. Answer: B

Solution



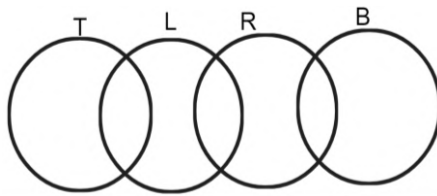
58. Answer: D

Solution



59. Answer: B

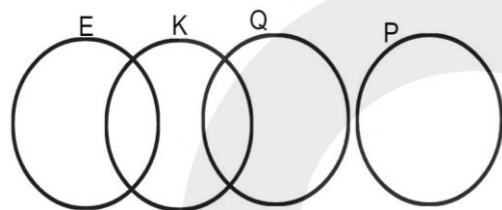
Solution



Conclusion (b) does not follow.

60. Answer: E

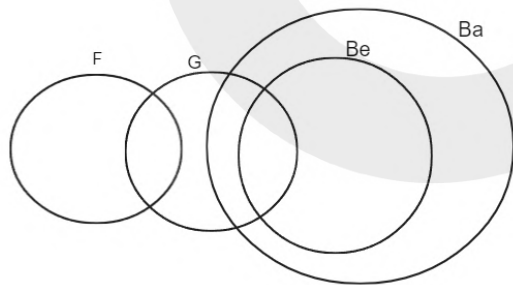
Solution



All follow.

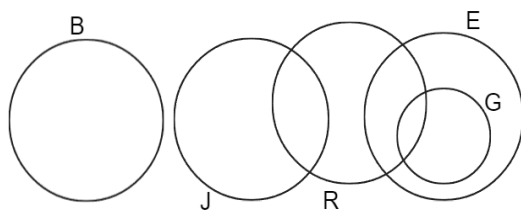
61. Answer: C

Solution



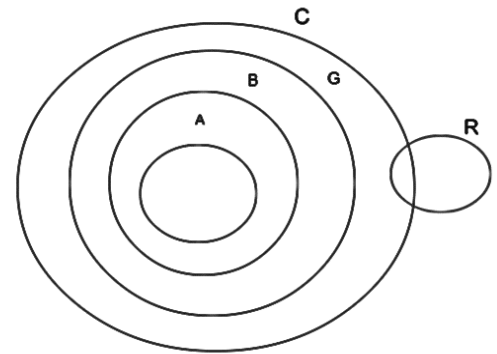
62. Answer: D

Solution



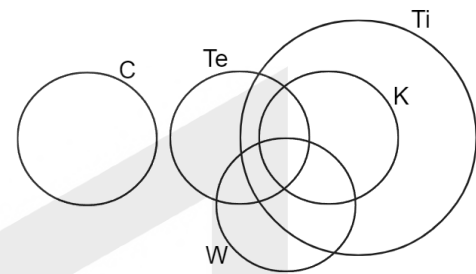
63. Answer: B

Solution



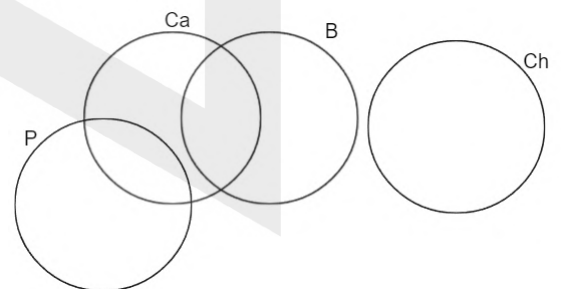
64. Answer: E

Solution



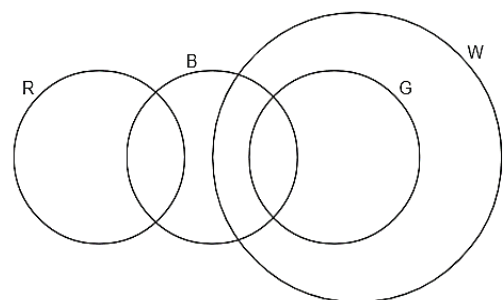
65. Answer: B

Solution



66. Answer: D

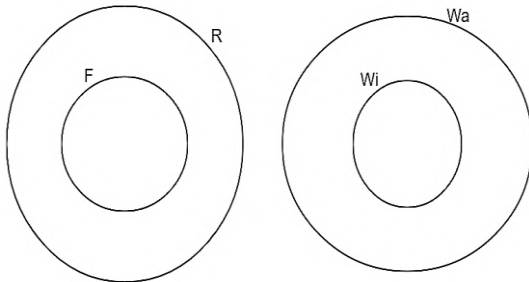
Solution





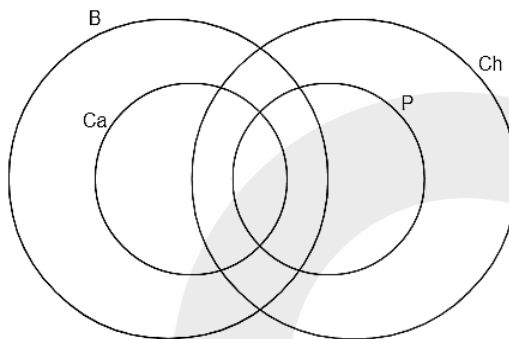
67. Answer: A

Solution



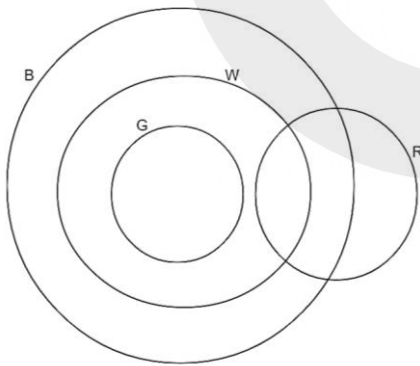
68. Answer: E

Solution



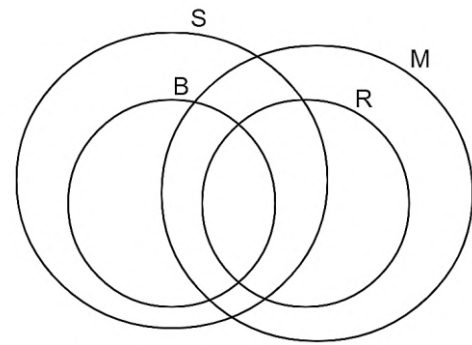
69. Answer: D

Solution



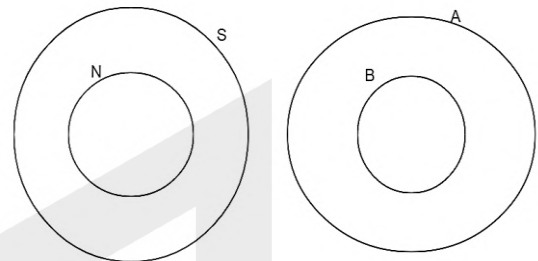
70. Answer: B

Solution



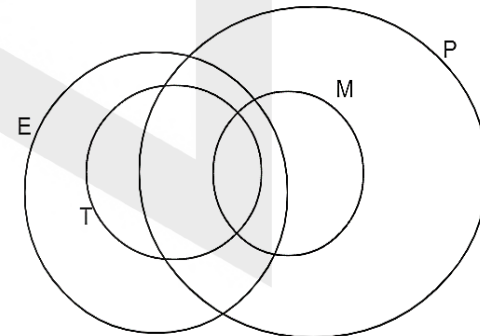
71. Answer: D

Solution



72. Answer: C

Solution



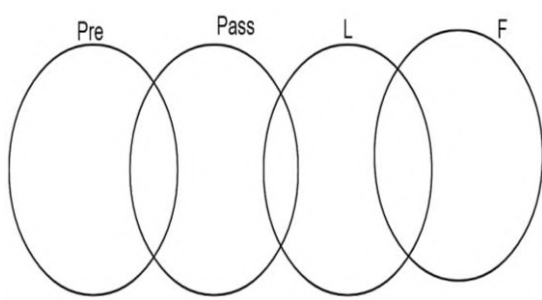
73. Answer: E

Solution

None of these follow.

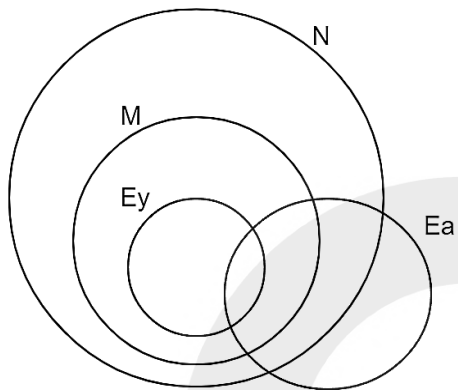
74. Answer: D

Solution



75. Answer: D

Solution

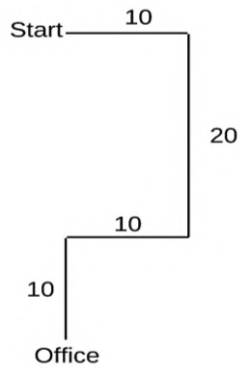




DIRECTIONS SOLUTIONS

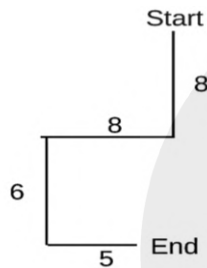
1. Answer: A

Solution



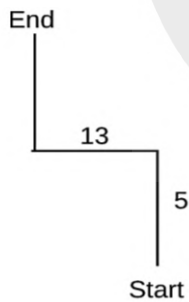
2. Answer: E

Solution



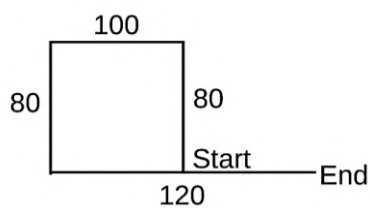
3. Answer: D

Solution



4. Answer: C

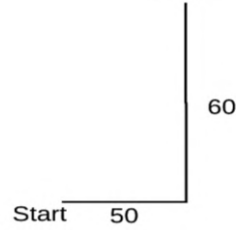
Solution



5. Answer: C

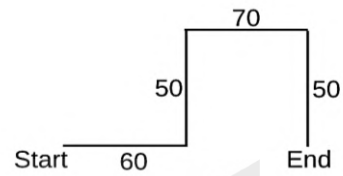
Solution

End



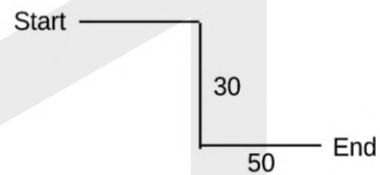
6. Answer: C

Solution



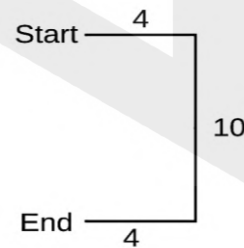
7. Answer: D

Solution



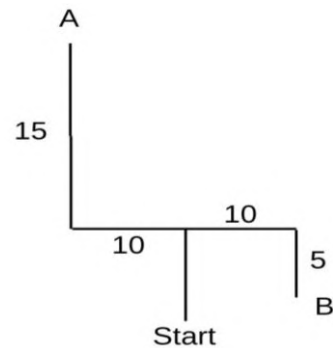
8. Answer: B

Solution



9. Answer: C

Solution





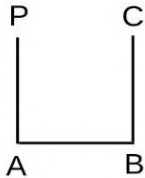
10. **Answer: A**

Solution

He is standing facing north.

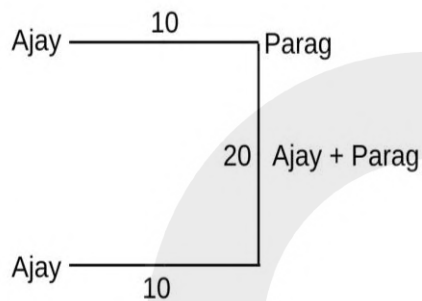
11. **Answer: C**

Solution



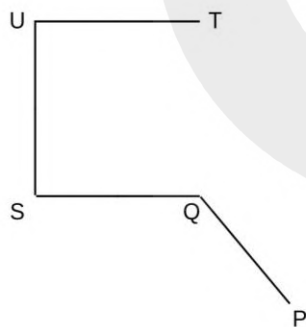
12. **Answer: B**

Solution



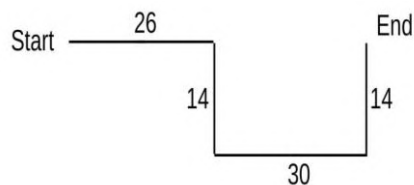
13. **Answer: C**

Solution



14. **Answer: B**

Solution

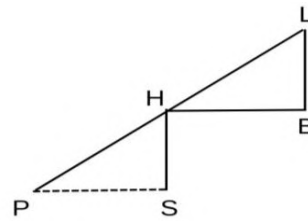


15. **Answer: B**

Solution

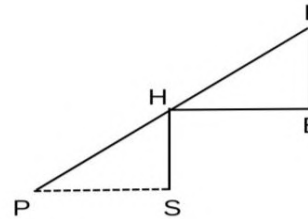
16. **Answer: E**

Solution



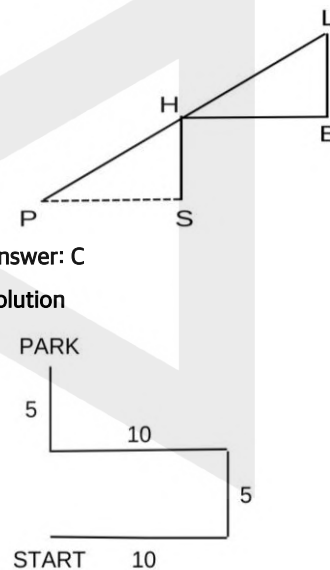
17. **Answer: A**

Solution



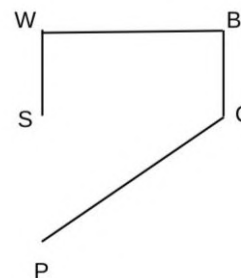
18. **Answer: C**

Solution



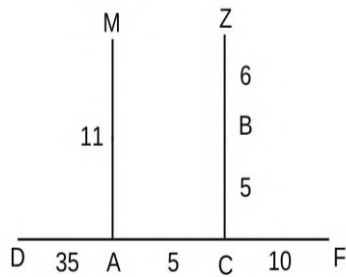
19. **Answer: E**

Solution



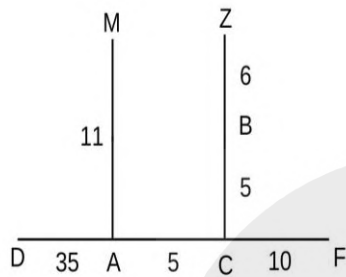
20. **Answer: B**

Solution



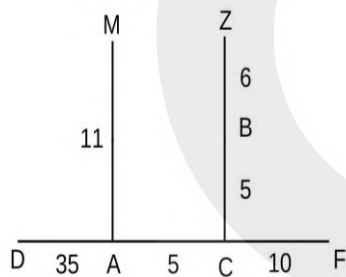
21. Answer: D

Solution



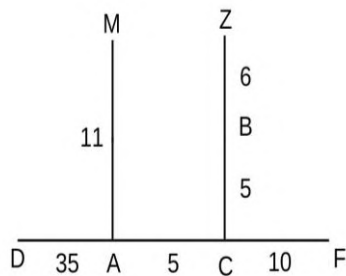
22. Answer: D

Solution



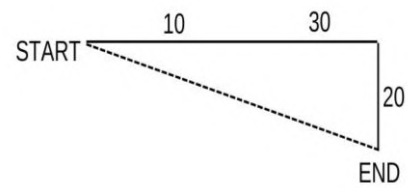
23. Answer: C

Solution



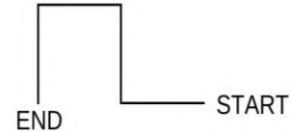
24. Answer: C

Solution



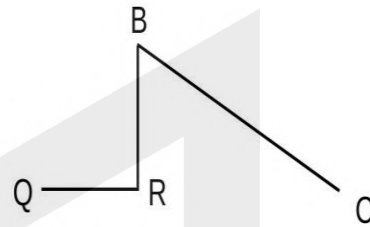
25. Answer: B

Solution



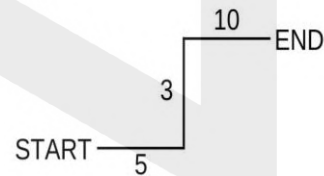
26. Answer: E

Solution



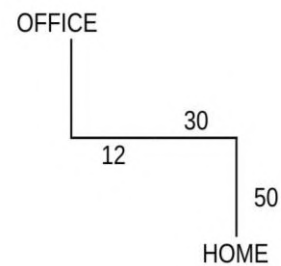
27. Answer: B

Solution



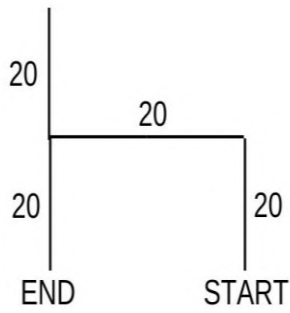
28. Answer: B

Solution

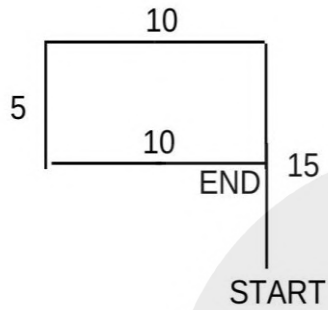


29. Answer: D

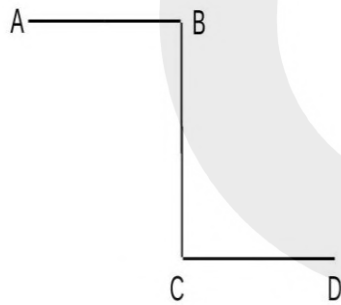
Solution



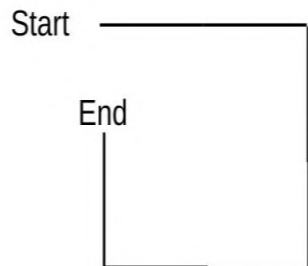
30. Answer: A
Solution



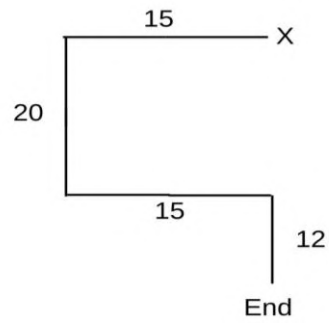
31. Answer: B
Solution



32. Answer: C
Solution



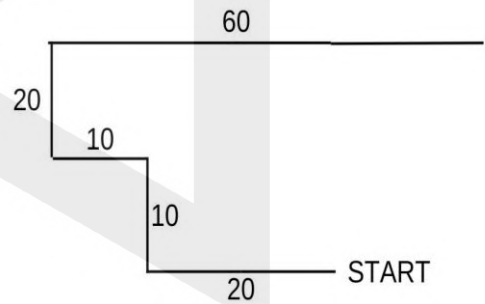
33. Answer: D
Solution



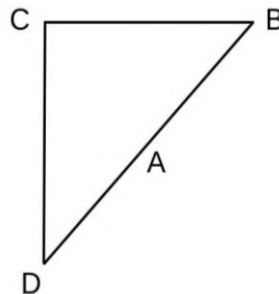
34. Answer: D
Solution



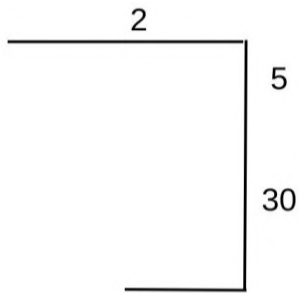
35. Answer: C
Solution



36. Answer: A
Solution

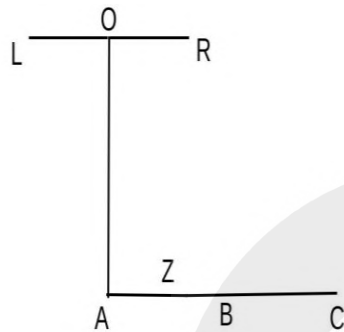


37. Answer: E
Solution



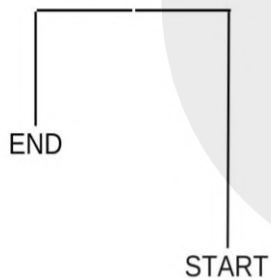
38. Answer: E

Solution



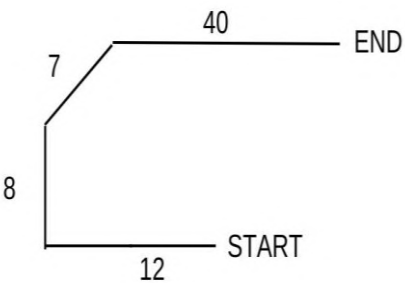
39. Answer: B

Solution



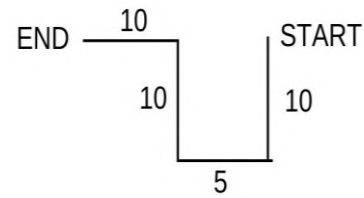
40. Answer: C

Solution



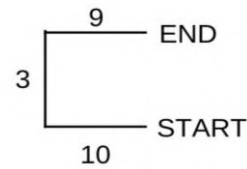
41. Answer: C

Solution



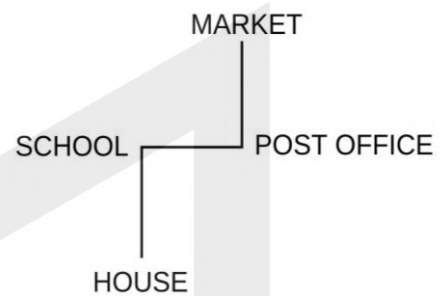
42. Answer: A

Solution



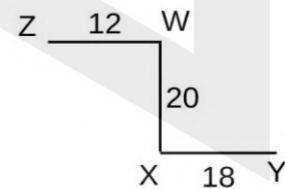
43. Answer: D

Solution



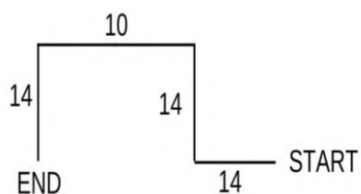
44. Answer: B

Solution



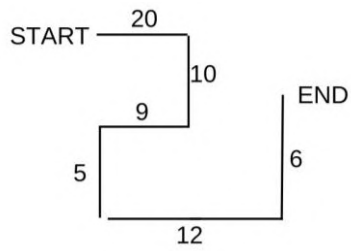
45. Answer: B

Solution



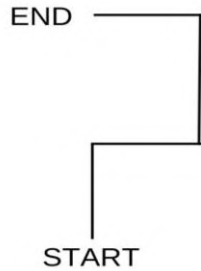
46. Answer: C

Solution



47. Answer: D

Solution



48. Answer: C

Solution



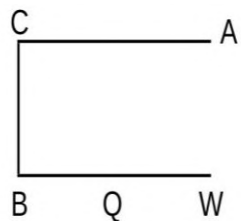
49. Answer: B

Solution



50. Answer: B

Solution

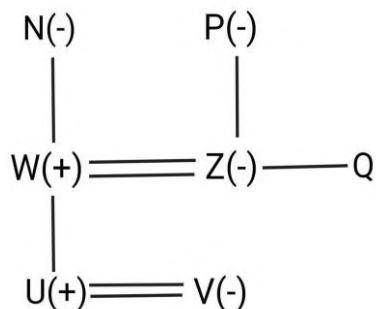




FAMILY TREE SOLUTIONS

Question (1-3)

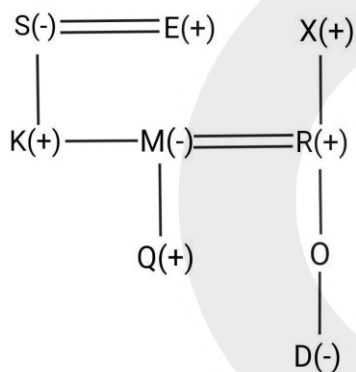
Solution



1. Answer: E
2. Answer: D
3. Answer: D

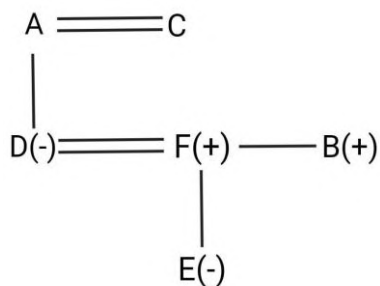
Question (4-5)

Solution



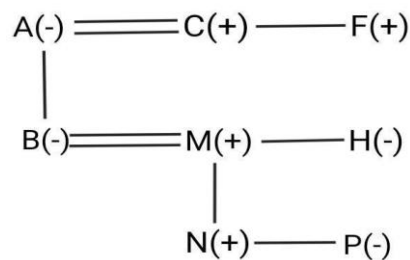
4. Answer: E
5. Answer: C
6. Answer: E

Solution



Question (7-9)

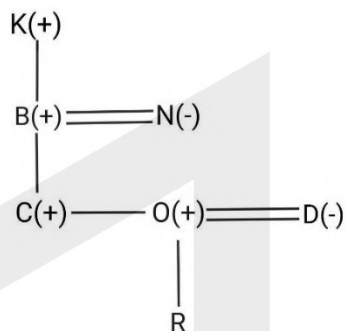
Solution



7. Answer: D
8. Answer: A
9. Answer: C

Question (10-12)

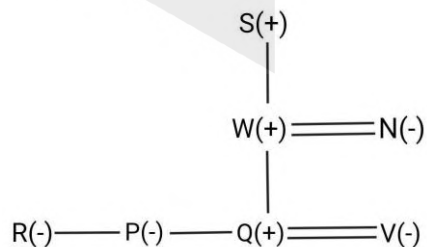
Solution



10. Answer: D
11. Answer: C
12. Answer: E

Question (13-14)

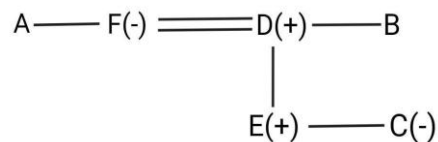
Solution



13. Answer: B
14. Answer: C

Question (15-16)

Solution



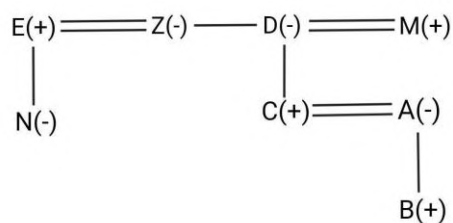
15. Answer: D



16. Answer: D

Question (17-18)

Solution

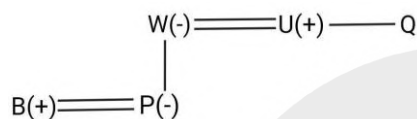


17. Answer: C

18. Answer: C

19. Answer: A

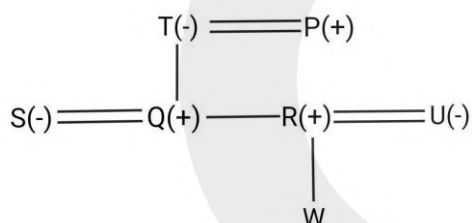
Solution



20. Answer: D

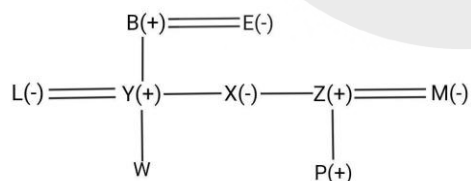
21. Answer: A

Solution



Question (22-23)

Solution

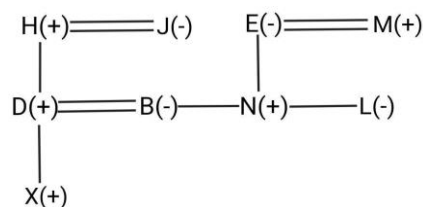


22. Answer: E

23. Answer: C

Question (24-26)

Solution



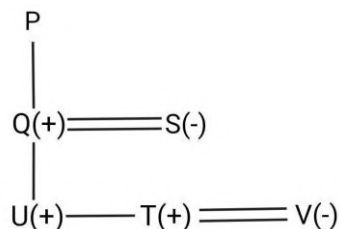
24. Answer: C

25. Answer: B

26. Answer: B

Question (27-28)

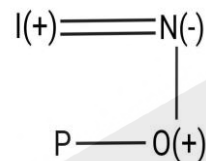
Solution



27. Answer: B

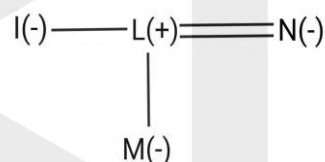
28. Answer: C

Solution



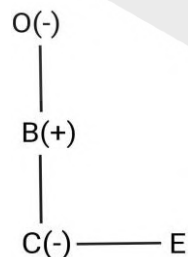
29. Answer: A

Solution



30. Answer: D

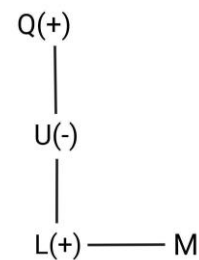
Solution



Question (31-33)

31. Answer: E

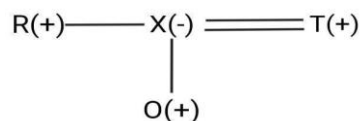
Solution





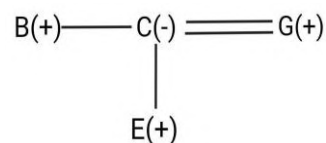
32. Answer: C

Solution



33. Answer: D

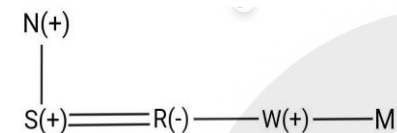
Solution



Question (34-36)

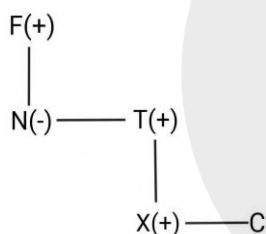
34. Answer: E

Solution



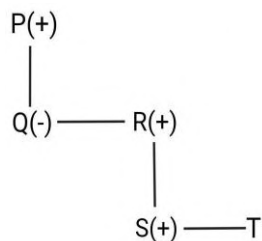
35. Answer: B

Solution



36. Answer: E

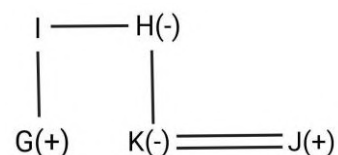
Solution



Question (37-39)

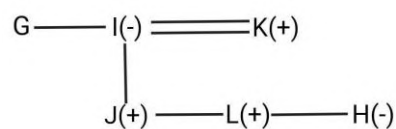
37. Answer: D

Solution



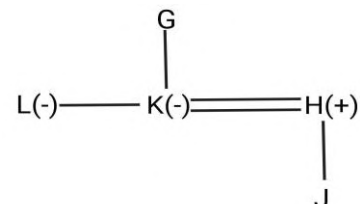
38. Answer: A

Solution



39. Answer: E

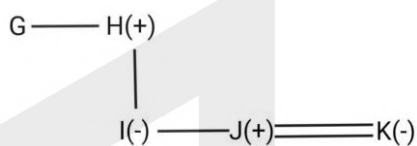
Solution



Question (40-43)

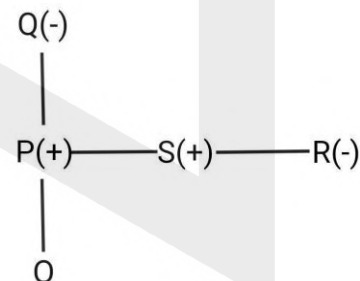
40. Answer: D

Solution



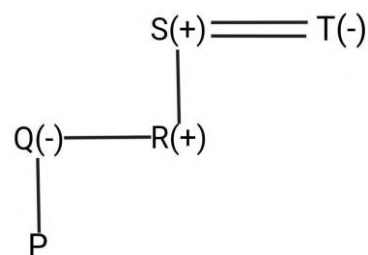
41. Answer: D

Solution



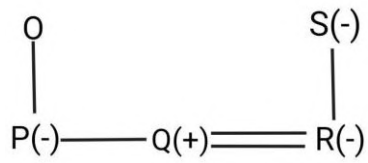
42. Answer: A

Solution



43. Answer: E

Solution



44. Answer: A

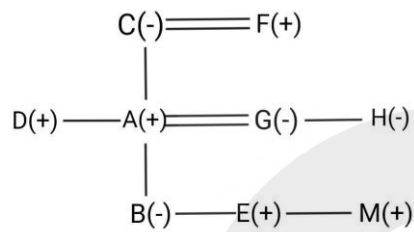
Solution

Brother of mother means maternal uncle. Hence only nephew of Atul's maternal uncle means Atul himself.

Therefore, Sania is the wife of Atul.

Question (45-47)

Solution



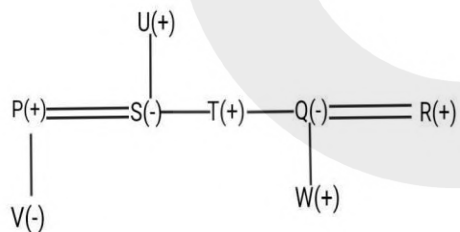
45. Answer: B

46. Answer: D

47. Answer: E

Question (48-50)

Solution



48. Answer: C

49. Answer: D

50. Answer: C



CODED INEQUALITIES SOLUTIONS

1. **Answer: A****Solution**

Combining both the statements we get ,
 $Z \geq L > Y \geq E > B = H$, hence we can conclude that $H < Z$

$U \leq Y > M$, thus no relation between M and U can be determined .

Hence only conclusion (I) follows.

2. **Answer: B****Solution**

Combining both the statements we get ,
 $T < Q \geq R$, thus no relation between T and R can be determined

$P > Q > T \geq S$, hence we can conclude that $S < P$

Hence only conclusion (II) follows.

3. **Answer: A****Solution**

Combining both the statements we get ,
 $A \leq B < C < D$, hence we can conclude that
 $D > A$

$B < C > E$, thus no relation between B and E can be determined

Hence only conclusion (I) follows.

4. **Answer: D****Solution**

Combining both the statements we get ,
 $P > Q \geq O < N \geq M$, thus no relation between P and M can be determined

$Q \geq O < N$, thus no relation between Q and N can be determined

Hence neither conclusion (I) nor conclusion (II) follows.

5. **Answer: C****Solution**

Combining both the statements we get ,
 $H > G \geq F \geq E$, hence we can conclude that
 $H > E$ and $G \geq E$

Hence both conclusions (I) and (II) follows.

6. **Answer: C****Solution**

Combining both the statements we get ,
 $F > E \geq C = B$, hence we can conclude that $F > B$

$A > B = C > D$, hence we can conclude that
 $D < A$

Hence both conclusions (I) and (II) follows.

7. **Answer: A****Solution**

Combining both the statements we get ,
 $A < B \leq Y < X$, hence we can conclude that
 $A < X$

$C < Y \geq Z$, thus no relation between C and Z can be determined

Hence only conclusion (I) follows.

8. **Answer: B****Solution**

Combining both the statements we get ,
 $S > T \geq Q > R < V$, thus no relation between S and V can be determined

$P \geq Q > R \geq U$, hence we can conclude that
 $U < P$

Hence only conclusion (II) follows.

9. **Answer: D****Solution**

Combining both the statements we get ,
 $M > N \geq O \leq Q \leq R$, thus no relation between M and R can be determined

$P < O \leq Q > S$, thus no relation between P and S can be determined

Hence neither conclusion (I) nor conclusion (II) follows.

10. **Answer: D****Solution**

Combining both the statements we get ,
 $W \leq X > Y > A$, thus no relation between A and W can be determined

$X > Y \geq Z < C$, thus no relation between C and X can be determined

Hence neither conclusion (I) nor conclusion (II) follows.

11. **Answer: C****Solution**

For conclusion I: $M > C$

From statements II and III, we get:

$C < G \leq M$

Here, the common sign between C and M is ' $<$ '. Hence
 $C < M$ or $M > C$.

Thus conclusion I follows.

For conclusion II: $Q > Y$



From statements I, II and III, we get:

$$Y < G = U \geq D > Q$$

Here, we can see the opposite sign between Q and Y, thus no relationship can be established between them.

Hence conclusion II does not follow.

Therefore only conclusion I follows.

12. **Answer: A**

Solution

For conclusion I: $Z < P$

From statements I and II, we get:

$$P > X > C \geq Z$$

Here, the common sign between P and Z is '>'. Hence $Z < P$ or $P > Z$.

Thus conclusion I follows.

For conclusion II: $D > C$

From statements I and II, we get:

$$D \geq X > C$$

Here, the common sign between D and C is '>'. Hence $D > C$ or $C < D$.

Hence conclusion II follows.

Therefore both conclusion I and II follows.

13. **Answer: E**

Solution

For conclusion I: $I < C$

From statements I and III, we get:

$$C = F < I$$

Here, the common sign between C and I is '<'. Hence $C < I$ or $I > C$.

Thus conclusion I does not follow.

For conclusion II: $U = T$

From statements II and III, we get:

$$U > C < T$$

Here, we get opposite signs between U and T. Thus no relationship can be established between them.

Hence conclusion II does not follow.

Therefore neither conclusion I nor II follows.

14. **Answer: B**

Solution

For conclusion I: $H > C$

From statements I and III, we get:

$$H \geq J \geq C$$

Here, the common sign between H and C is '≥'. Hence $H \geq C$.

Thus conclusion I does not follow individually.

For conclusion II: $H = C$

From statements I and III, we get:

$$H \geq J \geq C$$

Here, the common sign between H and C is '≥'. Hence $H \geq C$. Thus conclusion II also does not follow individually.

On combining conclusions I and II, we get: $H \geq C$, which is the true relationship.

Thus either conclusion I or II follows.

15. **Answer: C**

Solution

For conclusion I: $R > J$

From statements I and II, we get:

$$R = M \geq K > J$$

Here, the common sign between R and J is '>'. Thus $R > J$.

Hence conclusion I follows.

For conclusion II: $Y > R$

From statements I and II, we get:

$$Y \geq K \leq M = R$$

Here, we can see the opposite sign between Y and R, thus no relationship can be established between them.

Hence conclusion II does not follow.

Thus only conclusion I follows.

16. **Answer: D**

Solution

Symbols	\$	#	@	&	%
Meaning	\geq	\leq	$>$	$<$	$=$

Using the meaning of symbols ,

$$H = J < N > R$$

$$R = J$$

$$H > J$$

None of the above conclusions follow .

17. **Answer: B**

Solution

Using the meaning of symbols ,

$$M > J \geq T < N$$

$$N \leq J$$

$$T < N$$

Only conclusion 2 Follows.

18. **Answer: E**

Solution



Using the meaning of symbols,

$$G = M \leq T \geq N$$

$$1. T > G$$

$$2. T = G$$

Either conclusion 1 or 2 follows.

19. **Answer: C**

Solution

Using the meaning of symbols,

$$X \geq Y = W > Z$$

$$X \geq W$$

$$W > Z$$

Both the options follow.

20. **Answer: D**

Solution

Using the meaning of symbols,

$$P > S \geq R < Q$$

$$P > Q$$

$$Q > P$$

None of the above conclusions follow.

21. **Answer: B**

Solution

On converting: $P < Q \leq R > S$

Conclusions:

$$I. S < Q, \text{ NOT TRUE}$$

$$II. R > P, \text{ TRUE}$$

$$III. R \geq P, \text{ NOT TRUE}$$

Only II is true.

22. **Answer: E**

Solution

On converting: $A = B \geq C > D$

Conclusions:

$$I. D < B, \text{ TRUE}$$

$$II. C \leq A, \text{ TRUE}$$

$$III. D < A, \text{ TRUE}$$

All I, II and III are true.

23. **Answer: D**

Solution

On converting: $E \geq F > G \leq H$

Conclusions:

$$I. H > G, \text{ NOT TRUE}$$

$$II. G \leq E, \text{ NOT TRUE}$$

$$III. H > E, \text{ NOT TRUE}$$

None follow.

24. **Answer: A**

Solution

On converting: $H \leq I > J \geq K$

Conclusions:

$$I. K < I, \text{ TRUE}$$

$$II. K \leq I, \text{ NOT TRUE}$$

$$III. K < H, \text{ NOT TRUE}$$

Only I is true.

25. **Answer: E**

Solution

On converting: $M < N = O \leq P$

Conclusions:

$$I. O > M, \text{ TRUE}$$

$$II. P \geq N, \text{ TRUE}$$

$$III. P > M, \text{ TRUE}$$

All I, II and III are true.

26. **Answer: E**

Solution

As per the information given,

$$1. B @ S \text{ means } B \geq S$$

$$2. S \% T \text{ means } S > T$$

$$3. T \$ C \text{ means } T = C$$

So, the final equation will be,

$$B \geq S > T = C$$

Now, the Conclusion I. $C \times B$ means $C < B$, TRUE

The Conclusion II. $T \times B$ means $T < B$, TRUE

Hence, both I and II is true.

27. **Answer: C**

Solution

As per the information given,

$$1. H \% Z \text{ means } H > Z$$

$$2. B + Z \text{ means } B \leq Z$$

$$3. B @ A \text{ means } B \geq A$$

So, the final equation will be,

$$H > Z \geq B \geq A$$

Now, the Conclusion I. $A \$ Z$ means $A = Z$, NOT

TRUE

The Conclusion II. $Z \% A$ means $Z > A$, NOT TRUE

Hence, either I or II is true.

28. **Answer: A**

Solution

As per the information given,

$$1. F \$ M \text{ means } F = M$$

$$2. M \% E \text{ means } M > E$$

$$3. E @ R \text{ means } E \geq R$$

So, the final equation will be,

$$F = M > E \geq R$$



Now, the Conclusion I. $R \times F$ means $R < F$, TRUE
 The Conclusion II. $E + F$ means $E \leq F$, NOT TRUE
 Hence, only conclusion I is true.

29. **Answer: D**

Solution

As per the information given,

1. $H + T$ means $H \leq T$
2. $T \times U$ means $T < U$
3. $U \$ J$ means $U = J$

So, the final equation will be,

$$H \leq T < U = J$$

Now, the Conclusion I. $J @ T$ means $J \geq T$, NOT TRUE

The Conclusion II. $H + U$ means $H \leq U$, NOT TRUE
 Hence, neither I or II is true.

30. **Answer: D**

Solution

As per the information given,

1. $Y \times T$ means $Y < T$
2. $T @ R$ means $T \geq R$
3. $R + D$ means $R \leq D$

So, the final equation will be,

$$Y < T \geq R \leq D$$

Now, the Conclusion I. $D \% T$ means $D > T$, NOT TRUE

The Conclusion II. $Y + R$ means $Y \leq R$, NOT TRUE
 Hence, neither I or II is true.

31. **Answer: D**

Solution

The conclusions are,

$L \$ F$ means $L \geq F$

$B \# L$ means $B < L$

$E @ B$ means $E > B$

After putting values of the symbols ,

$$S \geq B < F = E \leq L$$

$$S < B < F \leq E \leq L$$

$$S \geq B < F \leq E = L$$

Here all the conclusions are satisfying,

Hence, either 1 or 2 or 3 satisfies.

32. **Answer: E**

Solution

The conclusions are,

$M @ F$ means $M > F$

$F \& K$ means $F = K$

$F \# K$ means $F < K$

After putting values of the symbols ,
 $K = B \geq F < H \leq M$, satisfies all the conclusions ,
 Hence , $\&$, $\$$, $\#$, $*$

33. **Answer: D**

Solution

The conclusions are,

$R @ P$ means $R > P$

$P \& N$ means $P = N$

$P * R$ means $P \leq R$

$S \$ N$ means $S \geq N$

After putting values of the symbols ,

$S \geq P > N \leq R$, satisfies all the conclusions ,

Hence, $@$

34. **Answer: C**

Solution

As per the information given,

1. $C \$ E$ means $C \geq E$

2. $F @ M$ means $F > M$

3. $C \$ Z$ means $C \geq Z$

4. $E \$ F$ means $E \geq F$

5. $N \& E$ means $N = E$

So, the final equation will be,

$$Z \leq C \geq E = N \geq F > M$$

Now, the Conclusion I. $F @ Z$ means $F > Z$, NOT TRUE

The Conclusion II. $Z @ E$ means $Z > E$, NOT TRUE

The Conclusion III. $E @ M$ means $E > M$, TRUE

The Conclusion IV. $N @ C$ means $N > C$, NOT TRUE

Hence, Only III is true Explanation

35. **Answer: E**

Solution

The conclusions are,

$V \$ F$ means $V \geq F$

$T \# V$ means $T < V$

$E @ T$ means $E > T$

To satisfy $V \$ F$, $\#$ must be between T and F only

$$H = T < F \leq E = V$$



CODING DECODING SOLUTIONS

1. **Answer: E****Solution**

A	M	B	A	S	S	A	D	O	R
↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
+2	+2	+2	+2	+2	+2	+2	+2	+2	+2
↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
C	O	D	C	U	U	C	F	Q	T

Similarly,

D	I	P	L	O	M	A	T
↓	↓	↓	↓	↓	↓	↓	↓
+2	+2	+2	+2	+2	+2	+2	+2
↓	↓	↓	↓	↓	↓	↓	↓
F	K	R	N	Q	O	C	V

2. **Answer: C****Solution**

The letters of the word have been written in reverse order in that code.

fabrication \Rightarrow noitacirbaf

teleport \Rightarrow tropele

3. **Answer: B****Solution**

Here, each letter is represented by numeral denoting its position from the end of the English alphabet.

i.e., $z = 1, y = 2, \dots, m = 14, \dots, c = 24, b = 25, a = 26$.

Then fun $= 21 + 6 + 13 = 40$

soon $= 8 + 12 + 12 + 13 = 45$.

4. **Answer: D****Solution**

Clearly, each letter is assigned a numerical value which is twice the numeral denoting its positing in English alphabet.

same $= s + a + m + e$

$= 19 \times 2 + 2 + 13 \times 2 + 5 \times 2$

$= 38 + 2 + 26 + 10 = 76$.

5. **Answer: D****Solution**

organisation

cbdwlqjwyqcl

operation

cxfbwyqcl

\therefore separation

jfxwbwyqcl

6. **Answer: A****Solution**

Clearly, each word is coded by the numeral which is 1 less than the number of letters in the word.

Since, there are 10 letters in the word GRAPEFRUIT, so required $= 10 - 1 = 9$.

7. **Answer: E****Solution**

In the given coding system, we have:

Letter	A	B	C	D	E	F	G	H	I	J	K	L	M
Code	3	5	7	9	11	13	15	17	19	21	23	25	27

Letter	N	O
Code	29	31

So, the code for BOIL is 5, 31, 19, 25.

8. **Answer: B****Solution**

We wake up in the 'morning'. but 'morning' is called 'dark'. So, we wake up in the 'dark'

9. **Answer: C****Solution**

Clearly, 'ink' is used for writing. But a 'ink' is called 'honey'. So, 'honey' is used for writing.

10. **Answer: D****Solution**

'tree' is used to make papers. but a 'tree' is called 'book'. So, 'book' is used to make papers

11. **Answer: A****Solution**

Fishes live in 'water' and as given; 'water' is called 'colour'. so fishes live in 'colour'.

12. **Answer: E****Solution**

Clearly, a 'watch' is used to check the time but a 'watch' is called 'bag'. So, a 'bag' will be used to check the time.

13. **Answer: A****Solution**

Clearly, a 'clerk' is employed in an office to keep records and as given, 'clerk' is called 'principal'. So, a 'principal' is employed in an office to keep records.

14. **Answer: B****Solution**

the colour of blood is 'red', But as given 'red' means 'brown', so the colour of blood is 'brown'

15. **Answer: C****Solution**



- 'bananas' are yellow in colour and as given, 'bananas' are 'apricots'. So, 'apricots' are yellow in colour.
16. **Answer: D**
Solution
 A person will sit on 'chair' but a 'chair' is called 'roof'. So, a person will sit on the 'roof'.
17. **Answer: E**
Solution
 Clearly, 'lion' is the king of jungle. But 'lion' is called 'snake'. So, 'snake' is the king of jungle.
18. **Answer: A**
Solution
 The colour of grass is 'green' and as given, 'green' is called 'blue'. So, the colour of grass is 'blue'.
19. **Answer: B**
Solution
 A 'tractor' is used in agriculture. But a 'tractor' is called 'car'. So, a 'car' will be used to plough the field.
20. **Answer: C**
Solution
 Clearly, 'wood' is used to make furniture. But 'wood' is called 'rice'. So, 'rice' is used to make furniture.
21. **Answer: D**
Solution
 We write on a 'paper' and as given; 'paper' is called 'yellow'. So, we write on a 'yellow'.
22. **Answer: E**
Solution
 The colour of teeth is 'white' and as given, 'white' is called 'yellow'. So, the colour of teeth is 'yellow'.
23. **Answer: D**
Solution
 We have,
 The given Combination = '4\$186<#x'
 In the given combination, first element is a number and last element is a symbol.
 Thus, only condition 1 can be applied.
 Using, we can write the code of '4\$186<#x' as 'ABDTVNRF'.
 After applying condition 1 the code becomes 'FBDTVNRA'.

Hence, the correct answer is option D.

24. **Answer: B**

Solution

We have,

The given Combination = <48#3&9

In the given combination, first element is a symbol and last element is a number, also third element is an even number and sixth element is a symbol.

Thus, both conditions 2 and 3 can be applied.

After applying condition 2 and 3 the code becomes 'NAERCEN'.

Hence, the correct answer is option B.

25. **Answer: D**

Solution

We have

The given Combination = 5×6\$4<4@

In the given combination, first element is a number and last element is a symbol, third element is an even number, and sixth element is a symbol, also '4' is appearing twice in the code.

Thus, both conditions 1, 3 and 4 can be applied.

Using the above we can write the code of '5×6\$4<4@' as 'KFVBANAQ'.

After applying condition 1 the code becomes 'QFVBANAK'.

After applying condition 3 the code becomes 'QFEBAEAK'.

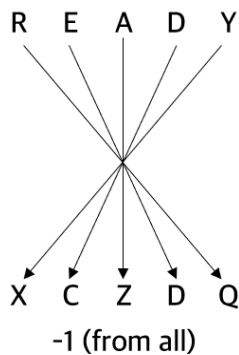
After applying condition 4 the code becomes 'QFEBEK'.

Hence, the correct answer is option D

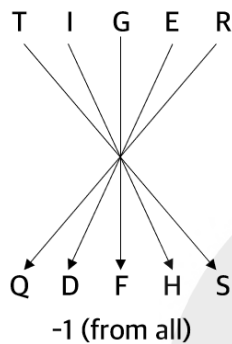
26. **Answer: A**

Solution

The letter of the word is written in reverse order & then each letter is moved one step backward to obtain the code.



Similarly,



27. **Answer: E**

Solution

In statements A and B, the common code word is 'na' and the common word is 'water'.

So, 'na' means 'water'.

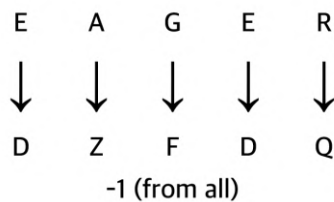
In statements B and D, the common code word is 'jo' and the common word is 'life'.

So, 'jo' means 'life'.

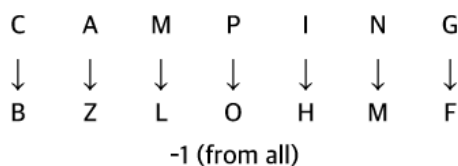
Thus, in statements B, 'tod' represents 'is'.

28. **Answer: D**

Solution



Each letter in the word is moved one step backward to obtain the corresponding letter of the code.



29. **Answer: A**

Solution

In the second and third statements, the common code is '9a#' and the common word is 'not'.

So, '9a#' means 'not'.

In the first and second statements, the common codes are '7c@' and '3a#' and the common words are 'is' and 'Eternal'.

So, in the second statement, '8b\$' means 'enmity'.

30. **Answer: C**

Solution

pour - #15t => p = #, r = t

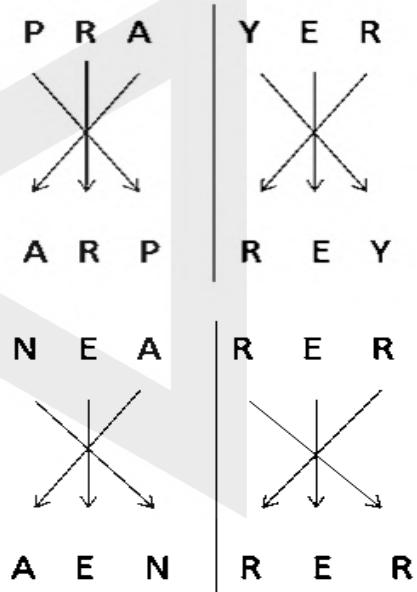
sware - 78yt9 => a = y, e = 9

clear - 3@9yt => l = @

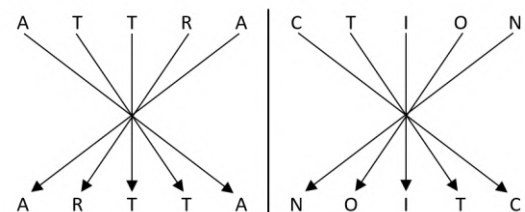
=> pearl = #9yt@

31. **Answer: E**

Solution



The letter is the first half and the letter half of the word are separately reversed to obtain the code.



32. **Answer: B**

Solution

D	E	L	H	I
↓	↓	↓	↓	↓
E	F	M	I	J

+1(for all)

Each letter in the word is moved one step forward to obtain the corresponding letter of the code.

M	U	M	B	A	I
↓	↓	↓	↓	↓	↓
N	V	N	C	B	J

+1(for all)

33. **Answer: A**

Solution

In the first and third statements, the common word is 'la' and the common word is 'are'.

So, 'la' means 'are'.

In the second and third statements, the common code word is 'sok' and the common word is 'bad'.

So, 'sok' means 'bad'.

Thus, in the third statements, 'sim' stands for 'they'.

34. **Answer: E**

Solution

Here 'cat' is coded as ecv

→ Leaving a letter in between i.e, after c leave d write e in small letters

In the same way, a => c, t => v

Similarly for run => twp

35. **Answer: C**

Solution

If we count letters till the end of the alphabet including that letter in reverse order then

Here the values are nothing but the values corresponding to the alphabets when taken in a reverse order, i.e., a=26, b=25..., z=1

f = 21, o = 12 and r = 9 totalling 42

h = 19 and e = 22 totalling 41

so

many = 14 + 26 + 13 + 2 = 55.

36. **Answer: B**

Solution

The code of the element 'GAP53' is '*@^+/'

No condition will be applied in this element.

Hence, the correct answer is option B.

37. **Answer: D**

Solution

Here we can see that, second element is even digit, then code of the first element will be same as the code of last element. Condition (2) will be applied, so code for 1 will same as code for

The other condition (3) will also follow as only one consonant is in the group; the code of the consonant will be same as the code of second last element.

Hence, the code of the group '14C03' will be as "/>

Hence; the correct answer is option D.

38. **Answer: C**

Solution

Here, Condition (1) will be applied in this question as more than two vowels are in the group, the code of all the vowels will be \$.

The code of the group 'GAAF3' will be "* \$\$=/"

Hence, option C is the correct answer.

39. **Answer: E**

Solution

The code of the element '0FPF4' is "<^={ " which is not given in any of the options.

Hence, option E is the correct answer.

40. **Answer: A**

Solution

Here we can see that, second element is even digit, then code of the first element will be same as code for last element. Condition (2) will be applied, so code for C will same as code for G.

The code of the element "C470G" is "{*<*"

Hence, option A is the correct answer.

41. **Answer: C**

Solution

The first letter of the code represents the reverse letter of the first letter of the word.

For Example: cut

The reverse letter of first word i.e. c is x.

Thus code will start with 'x'.

The second letter of the code represents the second

next letter (as per alphabet series) of third letter from the right end.

The third letter from right end is c, thus its second next letter as per alphabet series is e.

Thus 'cut' is coded as xe.

From the following explanation we can say that the code for calibration is 'xk'.

42. Answer: D

Solution

From the following explanation we can say that the code for 'bread butter' is 'yg yv'.

43. Answer: E

Solution

From the following explanation we can say that the code 'sq' stands for all three - 'hook', 'hope' and 'honour'.

44. Answer: B

Solution

From the following explanation we can say that the code for 'cunning model' is 'xk nf'.

45. Answer: A

Solution

From the following explanation we can say that the code for 'law swing' is 'on hk'.

46. Answer: D

Solution

In the code given for each word,

The number in the code of each word can be obtained using a following pattern:

If number of letters in a word is an odd number then number represents the number position of the middle letter of its corresponding word in alphabetic series.

If number of letters in a word is an even number then number represents sum of the numeric position of the middle letters of its corresponding word in alphabetic series.

For example, the number of letters in the word 'bank' is '4' which is even. Now, the middle letters of the word 'bank' are 'a' and 'n', and the numeric position of 'a' and 'n' in the alphabetic series is 1 and 14. So, the number is $1 + 14 = 15$.

Similarly, the number of letters in the word 'account' is '7' which is odd. Now, the middle letters of the word 'account' is 'o', and the numeric position of 'o' in

the alphabetic series is 15. So, the number is 15.

The symbol in the code of each word is representing the number of vowels in its corresponding word.

Number of Vowels	Symbols
1	@
2	#
3	\$
4	%
5	&

For example, the number of vowels in the word 'bank' is '1 (a)'. Hence, the symbol is '@'.

Similarly, the number of vowels in the word 'account' is '3 (a, o and u)'. So, the symbol is \$.

The letter in the code of each word is representing next letter of second letter of its respective word in the alphabetic series.

For example, the second letter of the word 'bank' is 'a' and we know that next letter of 'a' in alphabetic series is 'b'. Hence, the letter is 'b'.

Similarly, the second letter of the word 'account' is 'c' and we know that next letter of 'c' in alphabetic series is 'd'. Hence, the letter is 'd'.

Thus, the code of 'bank' is '15@b' and the code of 'account' is '15\$d'.

∴ we can say that the code for 'dodge high spends' is '4#p 16@j 19@q'.

47. Answer: C

Solution

We know,

Code of 'large balance' = 18#b 1\$b

Code of 'credit card' = 9#s 19@b

Code of 'higher reward' = 15#j 24#f

Code of 'debit card' = 2#f 19@b

48. Answer: A

Solution

Following the common explanation, we have:

Code of 'chance' = 15#i

Code of 'church' = 39@i

Code of 'choice' = 24\$i

49. Answer: C

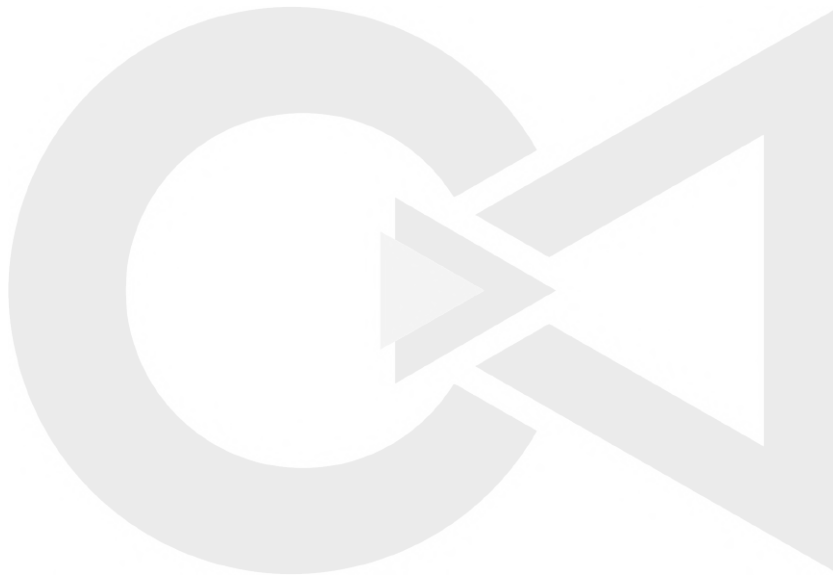
Solution

∴ We can say that the code for 'responsible customer' is '14%f 35\$v'.

50. Answer: D

Solution

∴ We can say that the code for 'collateral' is '21%p'.





ALPHA NUMERIC SERIES SOLUTIONS

1. Answer: E

Solution

The given sequence of words:

INE BED EAR SON AIR

Given sequence after changing the consonants to their next letter according to English alphabetical series.

IOE **CEE** **EAS** **TOO** **AIS**

Four such words (highlighted in bold) are there that have exactly two vowels.

2. Answer: B

Solution

The given sequence of words:

INE BED EAR SON AIR

Here, the second letter of first word from right end is 'I' and second letter of second word from left end is 'E'.

And, we know that there are three letters between I and E in English alphabetical series. viz. F, G, H.

3. Answer: A

Solution

The given sequence of words:

INE BED EAR SON AIR

Here, the last letters of first, second, third and fourth word from the right end are E, D, R and N respectively.

The number of meaningful words that can be formed are two viz. Nerd and Rend.

Nerd – A person regarded as socially dull, unsophisticated, awkward, etc.

Rend – Tear (something) into pieces.

4. Answer: D

Solution

The given sequence of words:

INE BED EAR SON AIR

Given sequence after arranging the letters of each word in alphabetical order within the word.

EIN BDE AER NOS AIR

Here, only one such word is unchanged i.e., AIR.

5. Answer: C

Solution

The given sequence of words:

INE BED EAR SON AIR

Given sequence after adding 'F' to left of the word which starts with a vowel and 'G' to the right of the word which starts with a consonant:

FINE **BEDG** **FEAR** **SONG** **FAIR**

Here, the number of meaningful words formed are 4.

6. Answer: B

Solution

After analysing the given options with their respective positions in the given sequence.

We can say that the pattern is that second element is second to the right of first element and third element is second to right of second element.

Here, the only option which does not follow the pattern is option (B).

7. Answer: E

Solution

The given sequence:

YX7/A4+3CE%OR5UG@K9V×5ZSI8\$B4?

Here, in the above sequence the first perfect square from left end is 4 and first perfect cube from the right end is 8.

Then, the number of symbols between 4 and 8 are

YX7/A4+3CE%OR5UG@K9V×5ZSI8\$B4

8. Answer: A

Solution

Here, we have 3 such vowels in the given sequence having a symbol immediate to them.

YX7/A4+3CE%OR5UG@K9V×5ZSI8\$B4?

9. Answer: B

Solution

The given sequence:

YX7/A4+3CE%OR5UG@K9V×5ZSI8\$B4?

After dropping the consonants and the symbols from the given sequence we have,

7A43EO5U95I84

Here, the 9th element from the left end is 9

10. Answer: B


Solution
The given sequence:

YX7/A4+3CE%OR5UG@K9V×5ZS18\$B4?

Here, in the above sequence first even number from the left end is 4 and first odd number from the right end is 5.

YX7/A4+CE%OR5UG@KV×5ZS18\$B4?

Thus, the number of vowels between 4 and 5 are E, O and U i.e. 3.

11. Answer: D
Solution

After comparing the given options with the given sequence.

We can observe that among all the options, except option D, the first and the second element share the same position from the left end and the right end respectively in the sequence. However, the third element is the one that comes next (towards right) to the 1st element in the given options.

Here, the only option which is not following the pattern is O / 8

12. Answer: C
Solution

After dropping all of the perfect squares and symbols from the given sequence we have,

J3P680IK72M8SU25A08CE5

Here, the 3rd element to the left of 9th element from the right end will be = (3 + 9)th element from the right end = M

13. Answer: A
Solution

Here, the 3rd, 9th, 16th, 23th and 30th letters are: P, K, S, A and E respectively.

J3P%680IK7?2!M8S&4U2+5A9O/18CE5

At this point 2 meaningful words can be formed using P, K, S, A and E 'Speak' which means 'to say something in order to convey information or to express a feeling'.

'Peaks' which is the plural of the word 'Peak' which means 'the pointed top of a mountain'.

14. Answer: D
Solution

Here, we have 2 such perfect squares and perfect cubes that are there in the sequence which are either preceded or followed by a symbol.

J3P%680IK7?2!M8S&4U2+5A9O/18CE95

15. Answer: B
Solution

The given sequence:

J3P%680IK7?2!M8S&4U2+5A9O/18CE95

Here, in the above sequence the second prime number from right end is '5' and second symbol from left end is '?'.
Then, the number of vowels to the left of 5 and to the right of ? is 1 (U) as highlighted below.

J3P%680IK7?2!M8S&4U2+5A9O/18CE95

16. Answer: B
Solution

The series ktus/ktus/ktus/ktus. Thus, the pattern 'ktus' is repeated.

17. Answer: C
Solution

Here 'bccb' repeated 3 times.

bccb|bccb|bccb

18. Answer: B
Solution

As both the given directions are towards 'Right', the resultant position = 21 - 6 = 15th from the right end. Therefore, 15th number from the right end = 3

19. Answer: C
Solution

67672521397538323418379242623851426

Clearly, four such 2's are there which are immediately followed by an odd number.

20. Answer: A
Solution

67672521397538323418379242623851426

In the above arrangement if we start counting from the right end, we can keep counting till we reach the 15th digit which is 3, from here we will continue counting from the left end because the reversal of the digits.

So, the 17th digit from the right end = 7

21. Answer: B

**Solution**

67672521397538323418379242623851426

Clearly, only one such 3 is there which is immediately preceded as well as followed by an odd number.

22. **Answer: D**

Solution

775139753331379351

Clearly, after deletion of all the even digits, the eleventh digit from the left end = 3

23. **Answer: E**

Solution

CU24 = 3 + 21 = 24

GV29 = 7 + 22 = 29

MF19 = 13 + 6 = 19

XO? = 24 + 15 = **39**

24. **Answer: A**

Solution

E(+6)K(+6)Q(+6)W

J(+6)P(+6)V(+6)B

27 (3³)64(4³)125(5³)216(6³)

25. **Answer: A**

Solution

The first digit is formed by adding the numbers which are the results of powers of 2 increased by one and second letter is the corresponding alphabet to that number...last number is the next number to the first one... therefore

15=7+8 (i.e., 2³)

O is corresponding alphabet to 15 and 16 comes after

15



LR DATA SUFFICIENCY SOLUTIONS

1. **Answer: D**

Solution

The tallest person cannot be determined by using either statement alone. Also, the data given in both his statements is not sufficient to answer the question. Hence, option D is the correct answer.

2. **Answer: D**

Solution

No relation can be determined between the two points. Hence, option D is the correct answer.

3. **Answer: A**

Solution

The relation between Harsh and Diksha can be determined with the help of the first statement alone. Hence, the correct answer is option A.

4. **Answer: D**

Solution

The position of Monica cannot be determined by using either statements alone or together. Hence the correct answer is option D.

5. **Answer: E**

Solution

The question can be answered with the help of both statements together. Hence the correct option is E.

6. **Answer: D**

Solution

Since in each statement we do not know which month is going on right now, the question cannot be answered. Hence the correct option is D.

7. **Answer: E**

Solution

The question can be answered using both statements together. Following the data, we come to know A faces East. Hence the correct answer is option E.

8. **Answer: E**

Solution

Both the statements I and II are necessary to answer the question. Hence the correct option is E.

9. **Answer: E**

Solution

S is at 3rd position from top, & R and T at 1st or 2nd. Q's marks are more than P. From both the statements, order in descending is R/T, T/R, S, Q, P.

∴ Statement I & 2 both are necessary to answer the question. Hence the correct answer is option E.

10. **Answer: E**

Solution

'no' is 'fo', 'one face' is 'om sop', 'face of no light' is written as 'om mot fo kiz', 'face' is 'om'. Hence both the statements together are necessary to answer the given question, the correct option is E.

11. **Answer: E**

Solution

All vowels are coded as next alphabets. All consonants are coded as previous alphabets. Hence both statements together are necessary to answer the given question, the correct option is E.

12. **Answer: D**

Solution

Both the statements are not sufficient to answer the given question. Hence, the correct option is D.

13. **Answer: B**

Solution

From statement two, it is clear that Z sits on the immediate left of Q. Hence, the question can be answered with the help of the second statement alone. Hence the correct option is B.

14. **Answer: C**

Solution

Here, the data in either statement I alone or in statement II alone are sufficient to answer the question. The correct option is C.

15. **Answer: D**

Solution

The data in both the statements I and II together are not sufficient to answer the question. Hence the correct answer is D.

16. **Answer: C**

Solution

Either of the two is sufficient to answer the question. Hence, the correct answer is option C.

17. **Answer: C**

Solution

From I - R who is facing North-East, turns 90° clockwise. Thus, he will be facing South-East. It is given that he would face the same direction as D. Hence, D will also be facing South-East.



From II - V who is facing North-West, turns 135° anticlockwise. Thus, he will be facing South Direction. It is given that he will face the direction 45° clockwise to the direction as D. Hence, D will be facing South-East.

Hence the question can be answered using either statement alone. The correct option is C.

18. **Answer: A**

Solution

The question can be answered by statement I alone. Hence, the correct option is A.

19. **Answer: D**

Solution

Ranks are not known for any of them. Thus, R's rank cannot be determined. Hence the correct option is D.

20. **Answer: E**

Solution

From I - V _ W K _ Q R or V _ K W _ Q R

From II - _ M W _ N _ R

From both - V M W K _ Q R

Hence, the question can be answered using both statements together. The correct answer is E.

21. **Answer: E**

Solution

From I - P's mother's birthday is on either 21^{st} or 22^{nd} December.

From II - P's mother's birthday is on 22^{nd} or 23^{rd} or 24^{th} December.

From both - P's mother's birthday is on 22^{nd} December.

Hence, the correct answer is E.

22. **Answer: C**

Solution

From I - $K > R > A/J > S > T$ Here, we can say that K is oldest among all.

From II - $K > A > S > J > T > R$. Here, we can say that K is the oldest.

Data in either statement I or statement II alone is sufficient to answer the question. Hence, the correct option is C.

23. **Answer: B**

Solution

From II - pant is coded as ke

Hence, data in statement II alone are sufficient to reach the answer. The correct answer is B.

24. **Answer: A**

Solution

Statement I alone is sufficient to answer the question. Hence, the correct answer is A.

25. **Answer: C**

Solution

In both of the cases only one person is sitting between Tina and Tanu. So, we can say that only one person is sitting between Tina and Tanu. Hence the correct answer is C.

26. **Answer: C**

Solution

From I - Total number of persons in the line = $9 + 1 + 4 + 1 + 15 = 30$

From II - Total number of persons in the line = $11 + 1 + 6 + 1 + 10 = 29$. Here, the data in either statement I alone or in statement II alone are sufficient to answer the question. Hence, the correct answer is option C.

27. **Answer: E**

Solution

Both statements are necessary as well as sufficient to answer the question. Hence, the correct answer is option E.

28. **Answer: A**

Solution

The data in Statement I alone is sufficient to answer the question.

Swift ____ Polo Breeza ____ Verna ____ Duster

Hence, the correct answer is A.

29. **Answer: E**

Solution

From I - ____ > ____ > K > J / D > D / J

From II - M > R > K > D

Using both - M > R > K > J / D > D / J, we can say that M is heaviest among these persons. Hence, the correct option is E.

30. **Answer: B**

Solution

From II we get, Arnav Afzal ____ Abdul

The data in Statement II alone is sufficient to answer the question. Hence, the correct answer is B.

31. **Answer: B**

Solution



8 persons + H + 3 persons + M + 3 persons + R + 6 persons + D + 1 person

Here, we can say that 14 people sit between H and D.

Hence, statement II alone is sufficient to answer the question. The correct answer is B.

32. **Answer: E**

Solution

From I and II,

Big Beat – 80

Ferris Wheel – 95

Loco Motion – 105

Roller Coaster – 110

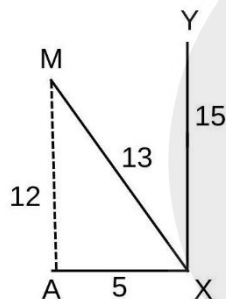
Mad Bull - lies between 110 and 150

Thus, both the statements are necessary to answer the given question. \therefore the correct answer is E.

33. **Answer: C**

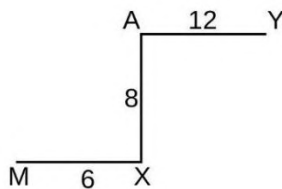
Solution

From I we get,



From I, point A is to the south of point M

From II we get, Point A is in the north-east from Point M.



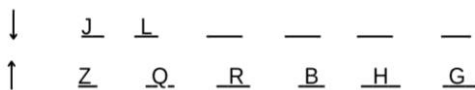
Hence, from either statement we get the direction of Point A from Point M.

\therefore The correct answer is C.

34. **Answer: B**

Solution

From II we get,



Hence, the correct answer is B.

35. **Answer: A**

Solution

From I we get,

Name	Floor	Colour
A	6	Black
C	5	Red
B	4	White
T	3	Blue
U	2	Yellow
S	1	Green

36. **Answer: D**

Solution

From Statement I alone, we can determine the relative positions of A, B, H, E, F, and D. However, we don't have enough information about the positions of C and G. Therefore, Statement I alone is not sufficient to determine the person who sits third to the right of C.

From Statement II alone, we can determine the relative positions of G, E, and B. However, we still don't have enough information to determine the person who sits third to the right of C.

By considering both statements together, we can combine the information about A, B, H, E, F, D, G, and C. However, even with this combined information, we do not have enough specific information to determine the exact person who sits third to the right of C. Therefore, the correct answer is D Statements I and II together are not sufficient.

37. **Answer: D**

Solution

Statement I alone is not sufficient to determine who is sitting in the middle. From Statement II alone, we can determine the positions of S, Q, P, and T. However, we still don't have enough information to determine who is sitting in the middle. Even with this combined information, we do not have enough specific information to determine who is sitting in the middle. Therefore, the correct answer is D Statements I and II together are not sufficient.

38. **Answer: D**

Solution

By considering both statements together, we can combine the information about A, CEO, B, CFO, G, F, D, C, J, H, and E. However, even with this combined information, we do not have enough specific information to determine the exact seating arrangement and the positions of the CEO and CFO. Therefore, the correct answer is D Statements I and II together are not sufficient.

39. **Answer: D**

Solution

By considering both statements together, we can combine the information about A, musician, B, lawyer, C, journalist, D, architect, E, professor, engineer, F, doctor, G, and H. However, even with this combined information, we do not have enough specific information to determine the exact seating arrangement and the professions of each friend. Therefore, the correct answer is D Statements I and II together are not sufficient.

40. **Answer: E**

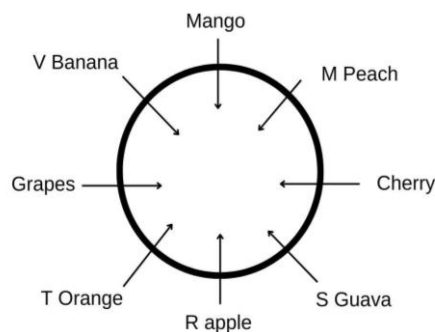
Solution

By considering both statements together, we can combine the information. Using the combined information, we have: Olivia - Lily - Sophia - Max - Ethan Therefore, both statements together are sufficient to determine the order in which the students finished. The correct answer is E Both statements together are sufficient.

41. **Answer: A**

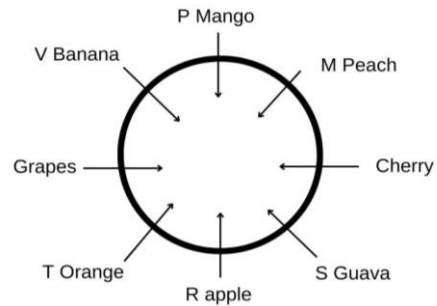
Solution

From I we get,



Hence, statement I alone is sufficient.

From III we get,



Hence statement III alone is sufficient to answer the given question. The correct answer is A.

42. **Answer: B**

Solution

From I we get,

Name	Floor	Age
W	6	48
P	5	52
O	4	32
Q	3	42
U	2	54
Y	1	64

Hence statement I alone is sufficient to answer the given question. The correct answer is B.

43. **Answer: D**

Solution

We get,

Name	Floor	Team
D	6	MI
Z	5	CSK
C	4	SRH
K	3	KXI
S	2	DD
R	1	RR

Hence, the correct answer is D.

44. **Answer: D**

Solution

From I we get,



W V O R T P Y
 BLUE RED BLACK GREY YELLOW WHITE BROWN

Hence, statement I alone is sufficient.

From III we get,

W V O/Y R T P Y/O
 BLUE RED BLACK GREY YELLOW WHITE BROWN

Hence, the correct answer is D.

45. **Answer: D**

Solution

From I we get,

Box	Colour	Item
M	Red	Bat
Q	Yellow	Bottle
Y	Black	Boy
R	Green	Toy
T	Brown	Mobile

Hence, the correct answer is D.

46. **Answer: E**

Solution

By considering both statements together, we can combine the information. Using the combined information, we have: Chloe - Amy - Emma - David - Brian

Therefore, both statements together are sufficient to determine the final rankings of the friends. The correct answer is E Both statements together are sufficient.

47. **Answer: B**

Solution

From II we get,

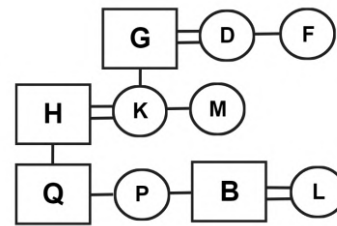
___ Z ___ R ___ H ___ G K ___ E

Hence, the correct answer is B.

48. **Answer: A**

Solution

From I we get,



Statement I is sufficient to answer the given question.

Hence, the correct answer is A.

49. **Answer: E**

Solution

After combining above statements we have

T
A
R
Q
V
U
Z

Hence, the correct answer is E.

50. **Answer: D**

Solution

The data given in both statements I and II is not sufficient to answer the given question. Hence, the correct answer is D.