

REASONING

Directions (1-5) : Study the following information carefully and answer the questions given below :

Seven people — P, Q, R, S, T, U and V are sitting around a circular table facing the centre with equal distance between them but not necessarily in the same order. Only four persons sit between R and V. Only one person sits between R and P. T sits to the immediate left of P. S sits second to the left of Q. S is not an immediate neighbour of R.

1. V is related to S and T is related to R in a certain way as per the given arrangement. To which of the following is P related to following the same way?
(1) V
(2) U
(3) T
(4) Other than those given as options
(5) R
2. If in the given arrangement all the people are made to sit in alphabetical order from left to right in anti-clockwise direction starting from P, then the position/s of how many people will remain unchanged (excluding P)?
(1) Three
(2) One
(3) More than three
(4) None
(5) Two
3. Which of the following statements is true with respect to U as per the given arrangement?
(1) Only two persons sit between U and S.
(2) R is sitting third to the left of U.

- (3) Q sits to the immediate left of U
 - (4) V is an immediate neighbour of U.
 - (5) None of the given statements is true.
4. Who sits fourth to the right of S?
(1) T
(2) P
(3) R
(4) U
(5) Other than those given as options
 5. How many people sit between T and Q when counted from the left of Q?
(1) One
(2) Two
(3) None
(4) Three
(5) Four
 6. In a certain code language, PARTS is coded as 9#*52 and similarly SPINE is coded as 29+6\$. How will STAIN be coded in the same code language?
(1) #9\$*+
(2) 25#+6
(3) 9*#2\$
(4) #5+9\$
(5) 25#9\$
 7. Four of the following five are alike in a certain way based on the English alphabetical series and so they form a group. Which is the one that does not belong to that group?
(1) QPST
(2) RQUV
(3) HGKL
(4) DCGH
(5) NMQR
 8. Shirish drives 6 km towards east, takes a left turn and drives 5 km. He takes a right turn, drives 18 km and takes a right turn again and drives 5 km and stops. How far is he from the starting point?
(1) 12 km
(2) 23 km
(3) 24 km
(4) 19 km
(5) 11 km

9. In a class of 8 students, Payal's rank is 3rd from the top and Zara's rank is 4th from the bottom. If Sonal's rank is exactly between Payal's and Zara's rank, what is Sonal's rank from the top ?
(1) 3rd
(2) 6th
(3) 5th
(4) 4th
(5) Cannot be determined
10. If only one meaningful English word can be made with the second, the sixth and the ninth letters of the word INDUSTRIES (when counted from left to right) using each letter only once, then which of the following will be the second letter of the word from the right. If no such word can be formed, then your answer is X. If more than one such word can be formed then your answer is Z?
(1) N
(2) X
(3) T
(4) Z
(5) E
11. The positions of the first and the fourth letters of the word DESIGN are interchanged; similarly, the positions of second and fifth letters and third and sixth letters are interchanged. In the new arrangement thus formed, how many letters are there between the letter which is second from the left and the letter which is second from the right, in English alphabetical order?
(1) More than three
(2) Two
(3) One
(4) Three
(5) None
12. How many such pairs of letters are there in the word 'MEDICAL' each of which has as many letters between

them in the word (in both forward and backward directions), as they have between them in the English alphabetical series ?

- (1) Two
- (2) More than three
- (3) None
- (4) One
- (5) Three

13. The following series is based on a particular combination of English alphabet and numbers. Which of the following will come in place of question mark (?) in the given series? AZ-21 CY-18 FX-15 JW-12 ?

- (1) PU-7
- (2) OV-9
- (3) PU-8
- (4) NV-9
- (5) OV-7

14. J is the husband of P. Q is the mother of P. H is the daughter of P. S is the grandmother of H. J is the son of Y. How is Y related to P ?

- (1) Uncle
- (2) Father-in-law
- (3) Mother-in-law
- (4) Aunt
- (5) Father

15. If all the digits of the number 83416 are arranged in descending order within the number, then what will be the product of the second digit from the left and the third digit from the right after the rearrangement?

- (1) 12
- (2) 18
- (3) 24
- (4) 32
- (5) Other than those given as options

Directions (16-20) : Study the following information carefully and answer the questions given below :

Seven people - J, K, L, M, N, O and P - are sitting in a straight line facing north with equal distances between each other, but not necessarily in the same order.

J sits fourth to the left of L. Neither L nor P sits at any extreme ends of the line. P sits second to the left of L. O sits to the

immediate left of P. Only four people sit between O and M. K sits at one of the positions to the right of N.

16. What is the position of P with respect to K?

- (1) Third to the right
- (2) Immediate left
- (3) Second to the left
- (4) Second to the right
- (5) Third to the left

17. If all the people are made to sit in an alphabetical order from right to left, the positions of how many people will remain unchanged?

- (1) One
- (2) Two
- (3) More than three
- (4) Three
- (5) None

18. Who sits exactly between K and P?

- (1) N, L
- (2) M, N
- (3) J, L
- (4) N, O
- (5) O, J

19. As per the given arrangement, four of the following five are alike in certain way and hence they form a group. Which of the following does not belong to the group?

- (1) KL
- (2) M P
- (3) PN
- (4) LN
- (5) JO

20. How many people sit between M and P?

- (1) More than three
- (2) One
- (3) Three
- (4) None
- (5) Two

Directions (21-25) : In these questions, two statements followed by two Conclusions numbered I and II have been given. You have to take the given statements to be true even if they seem to be at variance from commonly known facts and then decide which of the given Conclusions logically follows from the given statements disregarding commonly known facts.

Give answer (1) if either Conclusion I or Conclusion II follows

Give answer (2) if both the Conclusion I and Conclusion II follow

Give answer (3) if neither Conclusion I nor Conclusion II follows

Give answer (4) if only Conclusion I follows

Give answer (5) if only Conclusion II follows

21. **Statements :**

All offers are requests.
Some requests are demands.

Conclusions :

I. Some demands are definitely not offers.

II. All requests are offers.

22. **Statements :**

All shows are plays.
No play is a movie.

Conclusions :

I. No show is a movie.

II. All plays are shows.

23. **Statements :**

Some presents are gifts.
All gifts are awards.

Conclusions :

I. All awards are gifts.

II. Atleast some presents are awards.

24. **Statements :**

All rows are columns.
All columns are lines.

Conclusions :

I. Atleast some columns are rows.

II. All rows are lines.

25. **Statements :**

Some tables are graphs.
Some graphs are charts.

Conclusions :

I. No table is a chart.

II. Some tables are charts.

Directions (26-30) : Study the following arrangement of letters, numbers and symbols carefully and answer the questions given below :

A \$ M S 7 K G 6 W % N D 5 F
H 4 9 © U # 3 L * J E @ R 2 Q & T

26. If all the numbers are dropped from the arrangement, which of the following will be the eleventh from the left end of the given arrangement?

- (1) H (2) %
 (3) F (4) W
 (5) ©

27. How many such symbols are there in the given arrangement, each of which is immediately preceded by a consonant and also immediately followed by a number?

- (1) None
 (2) More than three
 (3) Three
 (4) One (5) Two

28. What should come in place of question mark (?) in the following series based on the given arrangement?

T& 2R J* U© ?

- (1) DN (2) FD
 (3) SD (4) HF
 (5) 5D

29. Which of the following is fifth to the right of the seventeenth from the right end of the given arrangement?

- (1) U (2) ©
 (3) 3 (4) #
 (5) L

30. Four of the following five are alike in a certain way based on their positions in the given arrangement and so they form a group. Which is the one that does not belong to the group?

- (1) RE@ (2) #L3
 (3) 9H4 (4) 6KG
 (5) U9©

Directions (31–35) : In these questions, relationship between different elements is shown in the statements. The statements are followed by two Conclusions numbered I and II. Study the Conclusions based on the given statements and select the appropriate answer.

Give answer (1) if either Conclusion I or Conclusion II is true

Give answer (2) if both the Conclusion I and Conclusion II are true

Give answer (3) if neither Conclusion I nor Conclusion II is true

Give answer (4) if only Conclusion I is true

Give answer (5) if only Conclusion II is true

31. **Statements :**

$$B \leq O \leq T = L \leq E = S$$

Conclusions :

- I. $B \leq E$
 II. $S \geq O$

32. **Statements :**

$$E < T > H < N > I < C$$

Conclusions :

- I. $E < I$
 II. $T > C$

33. **Statements :**

$$P \leq A = R < O = T \geq S$$

Conclusions :

- I. $T > P$
 II. $A < S$

34. **Statements :**

$$P > I = G > E > O < N$$

Conclusions :

- I. $N > I$
 II. $O < P$

35. **Statements :**

$$Q = U \geq I = L \geq T = S$$

Conclusions :

- I. $S = Q$
 II. $Q > S$

Directions (36–40) : The following questions are based on the five three digit numbers given below :

357 413 568 647 349

36. What will be the resultant if the first digit of second largest number is subtracted from the third digit of the smallest number?

- (1) 4 (2) 5
 (3) 6 (4) 2
 (5) 3

37. If all the digits within each number are arranged in descending order within the number and the numbers thus formed are arranged in descending order from left to right, which of the following will be the second number from the left end?

- (1) 647 (2) 413
 (3) 568 (4) 349
 (5) 357

38. If all the numbers are arranged in descending order from left to right, which of the following will be the sum of all three digits of the number which is fourth from the left end?

- (1) 19 (2) 18
 (3) 8 (4) 17
 (5) 15

39. If 2 is added to the middle digit of each number and 2 is subtracted from the first digit of each number, the sum of all the digits of how many numbers will be more than 20?

- (1) One (2) None
 (3) Two (4) Four
 (5) Three

40. What will be the resultant if the third digit of the smallest number is multiplied with the second digit of the largest number?

- (1) 28 (2) 54
 (3) 27 (4) 36
 (5) 18

QUANTITATIVE APTITUDE

41. Population of a village A increased by 5% from 2009 to 2010 and by 20% from 2010 to 2011. Population of the village in 2011 was what per cent more than that in 2009?

- (1) 26 (2) 24
 (3) 32 (4) 28
 (5) 34

42. Jar A has 140 litre of mixture of milk and water, in which water is 10%. 30 litre of this mixture was taken out and replaced with 'x' litre milk. If the resultant quantity of milk in the mixture was 112 litre, what is the value of x?

- (1) 10 (2) 12
 (3) 13 (4) 15
 (5) 11

43. 75% of 160 is equal to 40% of y% of 600, What is the value of y?

- (1) 50 (2) 75
 (3) 55 (4) 45
 (5) 60

44. The side of a square whose area is 256 square metre is equal to the breadth of a rectangle. If the difference between the length and breadth of a rectangle is 2 metre, what is its area? (in square metre)

- (1) 288 (2) 336
(3) 272 (4) 320
(5) 304

45. Naman invests 50% of his monthly salary in mutual funds. He spends the rest of his salary on rent and buying groceries in the ratio of 3 : 2 respectively. If he spends Rs. 18,000 on groceries, how much does he invest in mutual funds?

- (1) Rs. 45,000
(2) Rs. 50,000
(3) Rs. 55,000
(4) Rs. 35,000
(5) Rs. 30,000

46. A sum of Rs. 900, when invested in a scheme offering compound interest (compounded annually) for 2 years amounts to Rs. 1296. What is the rate of interest of the given scheme (in per cent per annum)?

- (1) 30 (2) 12.5
(3) 25 (4) 20
(5) 17.5

47. $\frac{1}{8}$ of a number, x is 3 more than $\frac{1}{12}$ of a second number, y . If y is 120% of x , what is the value of x ?

- (1) 72 (2) 120
(3) 240 (4) 180
(5) 360

48. The cost price of each of the articles A and B is Rs. 270. If article A was sold at a profit of 30% and article B was sold at a profit of 40%, what was the overall profit earned after selling both the articles?

- (1) Rs. 191 (2) Rs. 189
(3) Rs. 185 (4) Rs. 197
(5) Rs. 183

Directions (49-53) : Study the table and answer the given questions.

This table shows the number of people who purchased 4 different magazines (P, Q, R and S) during 5 months (from January to May)

Month	January	February	March	April	May
P	55	62	56	44	65
Q	60	60	64	80	68
R	54	75	42	75	42
S	57	28	45	57	46

Note : Every person purchased one magazine only.

49. What was the difference between the total number of people who purchased magazines P and R together in January and those who purchased the same magazines together in March?

- (1) 11 (2) 15
(3) 13 (4) 16
(5) 9

50. Out of the number of people who purchased magazine P in the month of May, 39 were females. What was the respective ratio between the number of males and females who purchased magazine P in the month of May?

- (1) 1 : 3 (2) 3 : 7
(3) 3 : 5 (4) 2 : 5
(5) 2 : 3

51. What was the average number of people who purchased magazine S in the months of January, March and April?

- (1) 53 (2) 54
(3) 51 (4) 48
(5) 49

52. What was the respective ratio between the total number of people who purchased magazine Q in the months of February and April together and those who purchased magazine R in the same months together?

- (1) 14 : 15 (2) 6 : 7
(3) 13 : 14 (4) 8 : 9
(5) 16 : 17

53. The number of people who purchased magazine R in the month of March was approxi-

mately what percent of those who purchased the same magazine in the month of January?

- (1) 87 (2) 78
(3) 48 (4) 65
(5) 56

Directions (54-67) : What will come in place of question mark (?) in the given questions?

54. $6840 - 1820 = ? + 3750$

- (1) 1210 (2) 1200
(3) 1500 (4) 1250
(5) 1270

55. $5\frac{1}{2} + 3\frac{3}{4} = 12 - ?$

- (1) $2\frac{1}{4}$ (2) $3\frac{1}{4}$
(3) $4\frac{3}{4}$ (4) $2\frac{3}{4}$
(5) $3\frac{1}{2}$

56. $62 \div 12 \times 4 = ?$

- (1) $24\frac{1}{6}$ (2) $21\frac{1}{3}$
(3) $18\frac{1}{3}$ (4) $20\frac{2}{3}$
(5) $15\frac{1}{6}$

57. $1580 + ? = 45 \times 40$

- (1) 220 (2) 280
(3) 240 (4) 260
(5) 180

58. $(1330 + 1220) \div ? = 212.5$

- (1) 22 (2) 12
(3) 18 (4) 32
(5) 24

59. $60\% \text{ of } (460 - 340) = ?$

- (1) 72 (2) 64
(3) 80 (4) 74
(5) 96

60. $1200 \div \frac{4}{3} - 800 \times 1.1 = ?$

- (1) 10 (2) 12
(3) 20 (4) 16
(5) 8

61. $625 \times \frac{1}{25} \times 4 = 20 \times ?$

- (1) 5 (2) 7
(3) 11 (4) 9
(5) 6

62. $\frac{5}{8}$ of $\frac{4}{15}$ of 372 = ?

- (1) 58 (2) 52
(3) 64 (4) 62
(5) 65

63. 20% of 220 $\times ? = 35.2$

- (1) 0.8 (2) 0.6
(3) 0.4 (4) 0.3
(5) 0.2

64. $8.7 \times 8.7 - 3.4 \times 8.7 + 1.7 \times 1.7 = ?$

- (1) 49 (2) 1
(3) 121 (4) 16
(5) 9

65. $189.25 + 329.95 - 444.2 = ?$

- (1) 72 (2) 121
(3) 75 (4) 99
(5) 101

66. $278 - 152 \div 8 = ?$

- (1) 259 (2) 269
(3) 253 (4) 261
(5) 255

67. $3.6 - 0.8 \times 1.5 = 5 - ?$

- (1) 1.4 (2) 2.6
(3) 3.6 (4) 1.6
(5) 2.4

Directions (68-73) : What will come in place of the question mark (?) in the following number series?

68. 5 6 24 58 107 ?

- (1) 190 (2) 128
(3) 170 (4) 205
(5) 152

69. 416 ? 104 52 26 13

- (1) 208 (2) 204
(3) 214 (4) 132
(5) 216

70. 452 440 416 368 272 ?

- (1) 98 (2) 131
(3) 94 (4) 102
(5) 80

71. 13 13 26 78 312 ?

- (1) 1390 (2) 1820
(3) 1460 (4) 1240
(5) 1560

72. 8 17 42 91 172 ?

- (1) 271 (2) 268
(3) 305 (4) 289
(5) 293

73. 7 8 16 43 107 ?

- (1) 270 (2) 232
(3) 202 (4) 234
(5) 240

74. A person travels 150 km in 1 hour 12 minutes. What distance will he be able to cover in 108 minutes (in km)?

- (1) 225 (2) 190
(3) 125 (4) 120
(5) 160

75. Simple interest on Rs. 'x' at the rate of 14 per cent per annum for 2 years is Rs. 364. What is the interest on Rs. (x + 100) at the same rate of interest for 3 years?

- (1) Rs. 672 (2) Rs. 546
(3) Rs. 756 (4) Rs. 504
(5) Rs. 588

76. A can complete a piece of work in 54 days and B can complete the same piece of work in 45 days. If they work together, what fraction of the same work they can complete in 9 days?

- (1) $\frac{7}{10}$ (2) $\frac{13}{20}$
(3) $\frac{17}{30}$ (4) $\frac{11}{30}$
(5) $\frac{3}{10}$

77. The ratio of present ages of A and B is 5 : 6 respectively. A is 7 years younger than B. What would be the respective ratio of their ages (of A and B) 14 years hence?

- (1) 5 : 8 (2) 3 : 4
(3) 7 : 8 (4) 6 : 7
(5) 5 : 7

78. The area of circle A is 616 cm². If the radius of circle B is 14 cm more than that of circle A, how much does the radius of circle B measure? (in cm.)

- (1) 42 (2) 35
(3) 28 (4) 21
(5) 49

79. A boat takes 4 hours 30 minutes to travel 90 km upstream. If the speed of the current is 6 km/h., what is the speed of the boat downstream? (in km/h.)

- (1) 32 (2) 20
(3) 40 (4) 24
(5) 36

80. The average score of 54 children in a group was 72. Six children of average score 76 joined the group. What was the new average score of the group?

- (1) 73.4 (2) 72.8
(3) 74.2 (4) 72.4
(5) 72.2