PART-I : REASONING

Directions (1-5) : *In these questions, relationship between different elements is shown in the statements. The statement is followed by two conclusions. Study the conclusions based on the given statement and select the appropriate answer.*

Give answer :

(1) If **neither** conclusion I **nor** II is true
(2) If **only** conclusion **I** is true
(3) If **both** conclusions I and II are true
(4) If **either** conclusion I **or** II is true
(5) If **only** conclusion **II** is true

1. **Statement :** $I = N \geq C = L \leq U = D$
Conclusions : I. $I = D$
II. $D < I$

2. **Statement :** $S < W = I < T = C < H$
Conclusions : I. $C > S$
II. $H > W$

3. **Statement :** $D < I = A \leq R = E > S$
Conclusions : I. $E > D$
II. $I > S$

4. **Statement :** $A > N < G = E < L > S$
Conclusions : I. $A > S$
II. $L > N$

5. **Statements :** $E < X < C > L < U > D$
Conclusions : I. $X > U$
II. $E < D$

Directions (6-10) .: *Study the following information and answe the following questions.*

Seven people—J, K, L, M, N, O and P are sitting around a circular table facing the centre with equal distance between them but not necessarily in the same order. O sits second to the right of L. Only three people sit between O and M. P sits second to the left of J. J is not an immediate neighbour of O. Only one person sits between P and K.

6. What is the position of P with respect to L ?
(1) Third to the right
(2) Immediate right
(3) Second to the left
(4) Third to the left
(5) Immediate left

7. Which of the following statements is not true with respect to N as per the given arrangement ?
(1) Only two people sit between N and O.
(2) P is an immediate neighbour of N.
(3) N sits to the immediate left of J.
(4) M sits second to the right of N.
(5) All the given statements are true

8. In which of the following groups of persons, is the third person sitting exactly between the first and second person as per the given arrangement ?
(1) LPK (2) PON
(3) JML (4) KML
(5) NPJ

9. Who sits fourth to the right of K ?
(1) O (2) L
(3) N (4) J
(5) Other than those given as options

10. If in the given arrangement, all the people are made to sit in alphabetical order in clockwise direction starting from J, then the positions of how many will remain unchanged (excluding J) ?
(1) Three
(2) More than three
(3) One
(4) Two
(5) None

11. P is the son of K. Q is the only sibling of P. R is the son-in-law of K. M is the daughter of R. How is Q related to M ?
(1) Aunt (2) Brother
(3) Father (4) Uncle
(5) Mother

12. In a class of 12 students, only three students rank higher than Sachin and only two students rank lower than Mukesh. How many students have their marks exactly between Sachin and Mukesh ?
(1) Cannot be determined
(2) Three
(3) Two
(4) Five
(5) Four

Directions (13-17) : *These questions are based on the five three-digit numbers given below :*
568 378 654 496 476

13. What will be the resultant if third digit of the highest number is subtracted from the second digit of the smallest number ?
(1) 3 (2) 5
(3) 4 (4) 2
(5) 1

14. If in all the numbers the position of first digit is interchanged with the third digit within the number, how many numbers thus formed will be divisible by 5 ?
(1) Two
(2) One
(3) Three
(4) More than three
(5) None

15. If all the digits in 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 third number from the left end ?
(1) 568 (2) 476
(3) 378 (4) 496
(5) 654

16. If 1 is subtracted from every even digit in each of the numbers, in how many numbers thus formed will a digit appear twice ?
(1) None (2) More than three
(3) One (4) Two
(5) Three

17. If '2' is added to the first digit of each number and '2' is subtracted from the middle digit and third digit of each number, the sum of digits of how many numbers thus formed will be equal to 17 ?
(1) Four (2) Two (3) None
(4) One (5) Three

18. If only one meaningful English word can be made with the fourth, sixth and ninth letters of the word COMPUTERISE, (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) X (2) P (3) Z
(4) I (5) T

19. If '1' is subtracted from each even digit and '2' is subtracted from each odd digit in the number 3724568 then how many digits will appear more than once in the number thus formed ?
(1) None (2) One
(3) Three (4) More than three
(5) Two

20. In a certain code language, CURED is coded as #6%7* and similarly ROADS is coded as %43*9. How will CODES be coded in the same code language ?
(1) #4*79 (2) #*379 (3) #4%63
(4) #4*%9 (5) *73#6

Directions (21-25) : *Study the given information carefully to answer the given questions.*
Seven people—P, Q, R, S, T, U and V are sitting in a straight line facing north with equal distances between each other but not necessarily in the same order.
Q sits exactly in the middle of the line. R is an immediate neighbour of Q. Only three people sit between U and R. S is an immediate neighbour of U. T sits fourth to the right of S. P sits at one of the positions to the left of T.

21. As per the given arrangement, four of the following five are alike in a certain way and hence form a group. Which of the following does not belong to the group ?
(1) VT (2) RT (3) SU
(4) QP (5) PT

22. Who sits exactly between R and V ?
(1) P (2) S
(3) Q (4) T
(5) Other than those given as options

23. What is the position of S with respect to P ?
(1) Second to the left (2) Second to the right
(3) Immediate right (4) Immediate left
(5) Third to the right

24. Who sits third to the left of U ?
(1) S (2) V
(3) Q (4) P
(5) No one as U sits at the extreme ends of the line

25. If T and Q interchange their places and so do R and S, who will sit between V and T as per the new arrangement ?
(1) Both Q and S (2) Only P
(3) Both P and S (4) Only U
(5) Both S and R

26. How many such pairs of letters are there in the word 'MODULAR' 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) One (2) More than three
(3) Two (4) Three
(5) None

Directions (27-31) : *Study the following arrangement carefully and answer the questions.*
W U 7 * C 3 & K © F β 4 E @ Z L % V 8 S Q A $ N 9 ¥ 2 M 6 5

27. If all the symbols are dropped from the arrangement, which of the following will be the tenth from the left end of the given arrangement ?
(1) V (2) 4 (3) F
(4) L (5) Z

28. Four of the following five are alike in a certain way based on their positions in the given arrangement and so form a group. Which is the one that does not belong to that group ?
(1) Z%E (2) L@V (3) &C©
(4) 4F@ (5) $Q9

29. How many such even numbers are there in the given arrangement, each of which is immediately preceded by a symbol and also followed by a letter ?
(1) One (2) Two (3) None
(4) Three (5) More than three

30. Which of the following is sixth to the right of the twentieth from the right end of the given arrangement ?
(1) % (2) Z (3) β
(4) L (5) V

31. What should come in place of the question mark (?) in the following series based on the given arrangement ?
#3 CF ©E 4Z ?
(1) EZ (2) LV (3) EL
(4) @L (5) 6L

32. The following series is based on a particular combination of English alphabets and numbers. Which of the following will come in place of question mark (?) in the given series ?
9Z-20 11A-18 13Y-16 15B-14 ?
(1) 14D-10 (2) 16B-12 (3) 17X-12
(4) 16X-10 (5) 17O-10

33. If all the digits of the number 49318 are arranged in ascending order from left to right within the number, then what will be the difference between the second digit from the left and the second digit from the right after the rearrangement ?
(1) Other than those given as options
(2) 5
(3) 2
(4) 3
(5) 4

34. Anil walks 4m towards the east, takes a right turn and walks 3m. He then takes a left turn and walks 5m before taking a final left turn and walking 3m. Towards which direction and how far should Anil walk to reach the point from where he initially started walking ?
(1) 8m towards West
(2) 8m towards East
(3) 7m towards West
(4) 9m towards West
(5) 9m towards East

Directions (35-39) : *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** II follows.
(2) If **both** conclusions I and II follow.
(3) If **only** conclusion **I** follows.
(4) If **only** conclusion **II** follows.
(5) If **neither** conclusion I **nor** II follows.

35. **Statements :**
All features are attributes.
All attributes are traits.
Conclusions :
I. All traits are attributes.
II. All features are traits.

36. **Statements :**
Some rates are prices.
All prices are charges.
Conclusions :
I. Atleast some rates are charges.
II. All charges are prices.

37. **Statements :**
Some costs are tariffs.
Some tariffs are fees.
Conclusions :
I. Some costs are fees.
II. All costs are fees.

38. **Statements :**
All notices are warnings.
No warning is a remark.
Conclusions :
I. Atleast some warnings are notices.
II. No notice is a remark.

39. **Statements :**
No thought is a perception.
Some perceptions are suggestions.
Conclusions :
I. No thought is a suggestion.
II. Some thoughts are suggestions.

40. What should come in place of question mark (?) in the series given below ?
AABCAABCDAABCDEAABCD?
(1) F (2) E (3) Q
(4) B (5) G

PART-II
QUANTITATIVE APTITUDE

Directions (41-45) : *What should come in place of question mark (?) in the given series ?*

41. 12 34 54 71 84 ?
(1) 89 (2) 92
(3) 124 (4) 100
(5) 110

42. 360 72 18 6 ? 3
(1) 3 (2) 5
(3) 4 (4) 4.5
(5) 6

43. 382 380 374 356 302 ?
(1) 212 (2) 240
(3) 140 (4) 201
(5) 158

44. 3 9 45 315 ? 31185
(1) 2465 (2) 2685
(3) 2955 (4) 2835
(5) 2755

45. 12 14 18 26 42 ?
(1) 106 (2) 74
(3) 92 (4) 68
(5) 84

46. A is able to do a piece of work in 15 days and B can do the same work in 20 days. If they can work together for 4 days, what is the fraction of work left ?
(1) $\frac{8}{15}$ (2) $\frac{7}{15}$
(3) $\frac{11}{15}$ (4) $\frac{2}{11}$
(5) Other than those given as options

47. Cost price of each of the articles A and B is ₹ 'x'. Article A was sold at a profit of 10% and article B was sold at a profit of 30%. If the overall profit earned after selling both the articles is ₹ 136/-, what is the value of 'x' ?
(1) ₹ 340/- (2) ₹ 300/-
(3) ₹ 360/- (4) ₹ 380/-
(5) ₹ 320/-

48. Population of a village increased by 5% from 2007 to 2008 and by 25% from 2008 to 2009. If the population of the village was 480 in 2007, what was its population in 2009 ?
(1) 640 (2) 610
(3) 630 (4) 650
(5) 670

Directions (49-63) : *What should come in place of question mark (?) in the given questions ?*

49. 24% of $150 \div \frac{3}{4} = ?$
(1) 64 (2) 48
(3) 72 (4) 24
(5) 42

50. $42.8 \times 13.5 \times 16.2 \times ? = 2340.09$
(1) 0.15 (2) 0.25
(3) 0.5 (4) 0.75
(5) 1

51. $652.84 + 482.26 + ? = 1200$
(1) 62.16 (2) 54.18
(3) 56.1 (4) 64.9
(5) 66.1

52. 60% of $250 - ? = 75$
(1) 25 (2) 45
(3) 60 (4) 75
(5) 100

53. $681 + ? \times 40 = 1161$
(1) 14 (2) 12
(3) 24 (4) 16
(5) 8

54. 17.8% of $? = 427.2 \times 8.4\%$ of 135
(1) 21784 (2) 24378
(3) 27216 (4) 28120
(5) 25620

55. $\frac{5}{6}$th of 348 $- \frac{1}{8}$th of 232 = ?
(1) 267 (2) 258
(3) 257 (4) 261
(5) 263

56. $3060 - 2460 = ? \times 30$
(1) 30 (2) 50
(3) 20 (4) 60
(5) 43

57. ?% of $(230.02 \times 7.89 - 559.85) = 960$
(1) 20 (2) 80
(3) 50 (4) 70
(5) 75

58. 25% of $459 + 65.01 + 5.02 = ?$
(1) 109 (2) 128
(3) 234 (4) 80
(5) 186

59. 55% of $260 - ? = 54 - 19$
(1) 96 (2) 108
(3) 106 (4) 104
(5) 94

60. 40.09% of 80.15 + 60.04% of 160.12 = ?
(1) 80 (2) 160 (3) 180
(4) 140 (5) 128

61. $14.08^2 - 3.01 \times 104.11 + 4.02 = ?$
(1) 280 (2) 200 (3) 160
(4) 120 (5) 125

62. $2058 + 49 + (6)^2 = ?$
(1) 76 (2) 78 (3) 80
(4) 82 (5) None of these

63. $(364 + 514 - ?) + 4 = 200$
(1) 62 (2) 82 (3) 78
(4) 68 (5) 72

64. In the month of March, Hiten spent 45% of his monthly salary on paying bill and rent. Out of the remaining salary, he invested 60% in PPF and the remaining he deposited in bank. He deposited ₹ 15,400/- in bank. If in April, he got an increment of 10%, what was his salary in April ?
(1) ₹ 84,000/- (2) ₹ 77,000/- (3) ₹ 1,10,000/-
(4) ₹ 59,000/- (5) ₹ 68,000/-

65. A person covers a certain distance by travelling at a uniform speed of 120 km/h for 90 min. At what speed will he have to travel in order to cover the same distance in 1 hour 20 min ? (in km/h)
(1) 135 (2) 125 (3) 140
(4) 130 (5) 145

66. In Jar A, 120 litre milk was mixed with 24 litre water. 12 litre of this mixture was taken out and 3 litre water was added. If 27 litre of newly formed mixture is taken out, what will be the resultant quantity of water in Jar A ? (in litre)
(1) 20 (2) 30 (3) 25
(4) 35 (5) 40

67. A boat, whose speed is 15 km/h in still water goes 30 km downstream and comes back in a total of 4 hours 30 min. What is the speed of the stream ? (in km/h)
(1) 10 (2) 6 (3) 5
(4) 4 (5) 15

68. Six years ago, the ratio of the ages of Kunal and Sagar was 6 : 5. Four years hence, the ratio of their ages will be 11 : 10. What is Sagar's present age ?
(1) 16 years (2) 18 years (3) 20 years
(4) 22 years (5) 25 years

69. A number X is 150 more than a second number, Y. If the sum of X and Y is 5 times Y, what is the value of Y ?
(1) 50 (2) 40 (3) 80
(4) 60 (5) 70

70. A square field has an area of 50625 m^2. Find the cost of fencing around it at ₹ 15 per metre (in ₹).
(1) ₹ 12,500/- (2) ₹ 17,500/- (3) ₹ 13,500/-
(4) ₹ 16,250/- (5) ₹ 15,500/-

71. The average weight of 8 persons increases by 2.5 kg when a new person comes in place of one of them weighing 65 kg. What will be the weight of the new person (in kg) ?
(1) 76 (2) 76.5 (3) 85
(4) 80 (5) 90

72. 50% of a number is 18 less than two-third of that number. Find the number.
(1) 123 (2) 115 (3) 119
(4) 108 (5) 101

73. A bag contains 20 tickets numbered from 1 to 20. Two tickets are drawn at random. What is the probability that both numbers are prime ?
(1) $\frac{8}{20}$ (2) $\frac{14}{95}$ (3) $\frac{7}{20}$
(4) $\frac{21}{190}$ (5) $\frac{21}{95}$

Directions (74-78) : *Study the table and answer the given questions.*

Number of people who watched 4 different movies (W, X, Y and Z) during 5 days (from Monday to Friday) of a particular week

Days / Movie	Monday	Tuesday	Wednesday	Thursday	Friday
W	28	26	18	24	32
X	30	34	36	30	26
Y	54	60	55	45	32
Z	50	55	58	60	68

74. What was the respective ratio between the total number of people who watched movie X on Monday and Wednesday together and those who watched movie Z on the same days together ?
(1) 15 : 17 (2) 31 : 13 (3) 11 : 18
(4) 11 : 17 (5) 11 : 15

75. What was the difference between the total number of people who watched movies X and Z together on Tuesday and those who watched the same together on Thursday ?
(1) 4 (2) 3 (3) 5
(4) 1 (5) 2

76. What was the average number of people who watched movie W on Monday, Wednesday and Friday ?
(1) 25 (2) 27 (3) 26
(4) 28 (5) 29

77. The number of people who watched movie Y on Wednesday was approximately what percent of those who watched the same movie on Friday ?
(1) 136 (2) 172 (3) 180
(4) 155 (5) 195

78. If the number of people who watched movie Z on Saturday was 32 more than those who watched the same movie on Friday, what was the total number of people who watched movie Z on Saturday ?
(1) 80 (2) 110
(3) 100 (4) 96
(5) 90

79. The compound interest on a certain sum for 2 years at 10% per annum is ₹ 525/-. The simple interest on the same sum for double the time at half the rate percent per annum is ..... .
(1) ₹ 400/- (2) ₹ 500/-
(3) ₹ 600/- (4) ₹ 800/-
(5) ₹ 700/-

80. A circle and rectangle have the same perimeter. The sides of the rectangle are 18 cm and 26 cm. What will be the area of the circle ? (in m^2)
(1) 88 (2) 1250
(3) 154 (4) 128
(5) Other than those given as options