Directions (1 – 5): Study the following information carefully to answer the given questions.

Eight friends A, B, C, D, E, F, G and H are sitting around a circle facing the centre. A sits third to the left of B, and second to the right of F. D does not sit next to A or B. C and G always sit next to each other. H never sits next to D and C does not sit next to B.

1. Which of the following pairs sits between H and E?
   1) F, D  2) H, B  3) G, G  4) E, G  5) None of these

2. Starting from A's position, if all the eight friends are arranged in an alphabetical order in clockwise direction the seating positions of how many members, excluding A do not change?
   1) None  2) One  3) Two  4) Three  5) Other than those given as options

3. Which of the following pairs has only one person sitting between them, if the counting is done in clockwise direction?
   1) A, B  2) C, D  3) F, E  4) G, H  5) Other than those given as options

4. Who sits on the immediate right of E?
   1) A  2) D  3) F  4) H  5) Other than those given as options

5. What is the position of B with respect to C?
   1) Second to the left  2) Third to the right  3) Third to the left  4) Can't be determined  5) Other than those given as options

Directions (Q. 6 – 10): In this question, relationship between different elements is shows in the statements. The statements are followed by conclusions. Study the conclusions based on the given statement and select the appropriate answer.

   Conclusions: I. R = H    II. R > H
   1) If only conclusion I is true
   2) If only conclusion II is true
   3) If either conclusion I or II is true
   4) If neither conclusion I nor II is true
   5) If both conclusion I and II are true
7. **Statement:** $M < T > K = D$
   **Conclusions:** I. $D < T$  II. $K < M$
   1) If both conclusion I and II are true
   2) If either conclusion I or II is true
   3) If only conclusion I is true
   4) If neither conclusion I nor II is true
   5) If only conclusion II is true

8. **Statement:** $R \leq N \geq F > B$
   **Conclusions:** I. $F = R$  II. $B < N$
   1) Neither conclusion I nor II is true
   2) Both conclusion I and II are true
   3) Only conclusion II is true
   4) Only conclusion I is true
   5) Either conclusion I or II is true

9. **Statement:** $H > W < M \geq K$
   **Conclusions:** I. $K < W$  II. $H > M$
   1) Only conclusion II is true
   2) Only conclusion I is true
   3) Neither conclusion I nor II is true
   4) Both conclusion I and II are true
   5) Either conclusion I or II is true

10. **Statement:** $R \geq T = M > D$
    **Conclusions:** I. $D < T$  II. $R \geq M$
    1) Either conclusion I or II is true
    2) Both conclusion I and II are true
    3) Neither conclusion I nor II is true
    4) Only conclusion I is true
    5) Only conclusion II is true

**Directions (Q.11 – 15):** Study the following information carefully and answer the questions given below.

```
E 4 B% R 3 A 6 # E H @ 1 2 D 9 © K U $ W 1 M P 5 * Q 8 T
```

11. If all the numbers are dropped from the above arrangement, which of the following will be ninth to the left of W?
   1) A  2) #  3) R  4) ©  5) Other than those given as options

12. How many such numbers are there in the given arrangement each of which is immediately preceded by a symbol and immediately followed by a letter?
   1) None  2) Two  3) Three  4) More than three  5) One
13. Which of the following is fifth to the right of the eighteenth from the right end of the above arrangement?
   1) ©  2) I  3) A  4) M
   5) Other than those given as options

14. Which of the following is fourth to the right of twelth from the left end of the above arrangement?
   1) 2  2) D  3) 9  4) M
   5) Other than those given as options

15. Four of the following are alike in a certain way based on their positions in the given arrangement and hence form a group. Which is the one that does not belong to that group?
   1) F@#  2) D©2  3) UWK  4) %3B
   5) 5QM

Directions (Q. 16 – 20): In each of these questions two/ three 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 with commonly known facts and then decide which of the given conclusions logically follows.

Give answer

1) If conclusion I follows
2) If conclusion II follows
3) If either conclusion I or II follows
4) If neither conclusion I nor II follows
5) If both conclusion I and II follow

16. Statement: No tea is coffee
   No sweet is sweet
   Conclusion: I. No coffee is sweet
              II. All sweets are coffee

17. Statements: All medals are awards
   All rewards are medals
   Conclusions: I. All rewards are awards
              II. All awards are medals

18. Statements: Some leaves are plants
   All bushes are plants
   Conclusions: I. At least some leaves are bushes
              II. Some leaves are definitely not bushes

19. Statements: All bottles are mugs
   No cup is a mug
   Conclusions: I. No bottle is a cup
              II. At least some mugs are bottles
20. **Statements:**

- All windows are doors
- All entrances are windows
- No gate is a door

**Conclusions:**

I. At least some windows are gates.

II. No gate is an entrance

**Directions (Q. 21 – 25):** Study the following information carefully and answer the questions given below.

A, B, C, D, E, F and G are sitting in a straight line facing north, but not necessarily in the same order.

There is only one person between F and C. E sits between A and D. There are only two persons between E and G. F sits on the immediate left of A, Who sits in the middle of the row.

21. How many persons are there between E and F?

1) One  
2) Two  
3) Three  
4) Can't be determined  
5) Other than those given as options

22. Who among the following sit at the extreme ends of the row?

1) D, F  
2) G, C  
3) B, C  
4) Can't be determined  
5) Other than those given as options

23. Who among the following sits on the immediate right of D?

1) G  
2) E  
3) F  
4) B  
5) None of these

24. Who among the following sits third to the right of A?

1) C  
2) G  
3) B  
4) E  
5) Other than those given as options

25. Which of the following statements is true with regard to B?

1) B is second to the right of A  
2) B is fourth to the left of G  
3) B sits at the extreme right end of the row  
4) B sits at the extreme left end of the row  
5) Other than those given as options

26. The positions of how many digits in the number 59164823 will remain unchanged after the digits are rearranged in descending order within the number?

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

27. What should come next in the following letter series based on English alphabet?

CEA  IKG  QQM  ?

1) STW  
2) WUS  
3) SWU  
4) UWS  
5) Other than those given as options
28. In a row of 40 children facing North, E is eighth to the right of V. If V is 18th from the right end of the row, what is the position of E from the left end of the row?

1) 32nd  
2) 10th  
3) 31st  
4) 29th  
5) Other than those given as options

Directions (Q.20 – 33): Following questions are based on the five three-digit numbers given below.

853 581 747 474 398

29. If all the digits in each of the numbers are arranged in descending order within the number, which of the following will form the lowest in the new arrangement of the numbers?

1) 853  
2) 581  
3) 747  
4) 398  
5) 474

30. If all the numbers are arranged in ascending order from left to right, which of the following will be the sum of all three digits of the number which is exactly in the middle of the new arrangement?

1) 17  
2) 15  
3) 14  
4) 13  
5) 19

31. What will be the resultant if the third digit of the lowest number is multiplied by the second digit of the highest number?

1) 27  
2) 40  
3) 20  
4) 45  
5) 19

32. If the positions of the second and the third digit of each of the numbers are interchanged, how many even numbers will be formed?

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

33. If one is added to the first digit of each of the numbers, how many numbers thus formed will be divisible by three?

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

34. In a certain code language JANUARY is written as ZSBTOBK. How is OCTOBER written in that code language?

1) SFCPUDP  
2) SFCNUDP  
3) SCFNDUP  
4) FSCNUDP  
5) Other than those given as options

Directions (Q. 35 – 37): Study the following information carefully to answer the given questions.

B is sister of A. A is father of G. H is the only son of F. F is only son-in-law of A. G is mother of H?

35. If C is husband of B, then how is A related to C?

1) Father  
2) Brother-in-law  
3) Mother  
4) Brother  
5) None of these

36. How is G related to B?

1) Brother  
2) Niece  
3) Sister  
4) Nephew  
5) Other than those given as options
37. How is A related to H?
   1) Uncle
   2) Father
   3) Paternal grandfather
   4) Maternal grandfather
   5) Other than those given as options

**Directions (Q. 38 – 39):** Study the following information carefully to answer the questions.

A vehicle starts from point P and runs 10 km towards North. It takes a right turn and runs 15 Km. Now it runs 6 Km after taking a left turn. Finally, it takes a left turn, runs 15 Km and stops at point Q.

38. How far is point Q with respect to point P?
   1) 16 Km
   2) 25 Km
   3) 4 Km
   4) 10 Km
   5) Other than those given as options

39. Towards which direction was the vehicle moving before stopping at point Q?
   1) North
   2) East
   3) South
   4) West
   5) Northwest

40. In a row of 34 students, W is fifth after X from the front and X is 20th from the back. What is the position of W from the front?
   1) 20
   2) 25
   3) 30
   4) 22
   5) Other than those given as options

**TEST - II: QUANTITATIVE APTITUDE**

**Directions (Q. 41 – 45):** What will come in place of question mark(?) in the following number series?

41. 12  13  17  26  42  ?
   1) 57
   2) 58
   3) 59
   4) 75
   5) Other than those given as options

42. 1  2  8  48  384  ?
   1) 3440
   2) 3840
   3) 3820
   4) 3550
   5) Other than those given as options

43. 157  150  136  115  87  ?
   1) 50
   2) 51
   3) 52
   4) 54
   5) Other than those given as options

44. 1  4  18  44  83  ?
   1) 131
   2) 132
   3) 135
   4) 136
   5) Other than those given as options

45. 8  4  4  6  12  ?
   1) 30
   2) 34
   3) 38
   4) 42
   5) Other than those given as options

**Directions (Q. 46 – 60):** What will come in place of question mark(?) in the following questions?

46. \(80.137 \times 9 + 2.11 \times 139.7 = ?\)
   1) 916
   2) 1016
   3) 1216
   4) 1026
   5) 1256
47. \[7802 + 132 - 8963 + 1326 = ? \times 33\]
   1) 6 2) 12 3) 21 4) 9
   5) 14

48. \[21.9\% \text{ of } 650 = ? + 23.12\]
   1) 121.23 2) 109.23 3) 119.32 4) 129.23
   5) Other than those given as options

49. \[6666 \div 66 \div 0.25 = ?\]
   1) 101 2) 404 3) 304 4) 40.4
   5) Other than those given as options

50. \[\sqrt{?} + 18 = \sqrt{2704}\]
   1) 1256 2) 1156 3) 1296 4) 1024
   5) 1466

51. \[217 + 435 - 317 + 5110 = ?\]
   1) 9710 2) 7170 3) 8710 4) 8470
   5) Other than those given as options

52. \[164 \times 43 - 6070 = ?\]
   1) 682 2) 792 3) 882 4) 1082
   5) 982

53. \[14.5\% \text{ of } 740 - ? \% \text{ of } 320 = 87.3\]
   1) 6.75 2) 6.25 3) 12.5 4) 14.75
   5) 8.25

54. \[(27)^3 - 3^4 + (81)^2 = ?\]
   1) 2 2) 5 3) 4 4) 3
   5) Other than those given as options

55. \[37.135 \text{ of } 25 + 125 \text{ of } 1.061 = \sqrt{?} + 894\]
   1) 28899 2) 29899 3) 27789 4) 27889
   5) Other than those given as options

56. \[4376 + 3209 - 1784 + 97 = 3125 + ?\]
   1) 2713 2) 2743 3) 2773 4) 2793
   5) 2737

57. \[\sqrt{?} + 14 = \sqrt{2601}\]
   1) 1521 2) 1369 3) 1225 4) 961
   5) 1296

58. \[85\% \text{ of } 420 + ? \% \text{ of } 1080 = 735\]
   1) 25 2) 30 3) 35 4) 40
   5) 45
59. \[ 3024 \div 54 \times (19 - 84) = ? \]
1) 920  
2) 940  
3) 960  
4) 980  
5) 840

60. \[ 30\% \times 1225 - 64\% \times 555 = ? \]
1) 10.7  
2) 12.3  
3) 13.4  
4) 17.5  
5) Other than those given as options

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

**Number of tourists who visit different cities by different modes of transport**

<table>
<thead>
<tr>
<th>Cities</th>
<th>Vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Car</td>
</tr>
<tr>
<td>Delhi</td>
<td>192</td>
</tr>
<tr>
<td>Mumbai</td>
<td>180</td>
</tr>
<tr>
<td>Chandigarh</td>
<td>156</td>
</tr>
<tr>
<td>Dehradun</td>
<td>132</td>
</tr>
<tr>
<td>Mussoorie</td>
<td>149</td>
</tr>
<tr>
<td>Jaipur</td>
<td>168</td>
</tr>
</tbody>
</table>

61. What is the average number of tourists who come by Train?
1) 190.5  
2) 188.5  
3) 175.83  
4) 137.5  
5) Other than those given as options

62. What is the difference between the total number of tourists who went to Mumbai and that to Mussoorie by all the vehicles?
1) 78  
2) 98  
3) 88  
4) 83  
5) Other than those given as options

63. What is the percentage of tourists who went to Dehradun by Train compared to the number of tourists who went to Chandigarh by Air?
1) 125  
2) 145  
3) 137  
4) 160  
5) Other than those given as options

64. What is the difference between the average number of tourists who went by Air to the average number of tourists who went by Bus?
1) 7.58  
2) 9.97  
3) 6.83  
4) 2.30  
5) Other than those given as options

65. What is the ratio of the number of tourists to Delhi who went by Car to that to Mumbai who went by Air?
1) 35 : 83  
2) 45 : 71  
3) 96 : 91  
4) 32 : 7  
5) Other than those given as options

66. If the wheel of a bicycle makes 560 revolutions in travelling 1.1 km, what is its radius? (use \( \pi = \frac{22}{7} \))
1) 31.25 cm  
2) 37.75 cm  
3) 35.15 cm  
4) 11.25 cm  
5) Other than those given as options
67. Elena’s age after 15 years will be 5 times her age 5 years back. What is her present age?
1) 10 years  
2) 37 years  
3) 35 years  
4) 11 years  
5) Other than those given as options

68. A man purchased a cow for ₹ 3000 and sold it the same day for ₹ 3600, allowing the buyers a credit of 2 years. If the rate of interest be 10% per annum, then the man has a gain of
1) 5%  
2) 0%  
3) 20%  
4) 10%  
5) Other than those given as options

69. A man takes 3 hours 45 minutes to row a boat 15 km downstream a river and 2 hours 30 minutes to cover a distance of 5 km upstream. Find the speed of the stream.
1) 1 kmph  
2) 3 kmph  
3) 5 kmph  
4) 2 kmph  
5) Other than those given as options

70. A cistern 6 m-long and 4-m wide contains water up to a height of 1m 25 cm. Find the total area of the wet surface of the cistern.
1) 42 sqm  
2) 49 sqm  
3) 52 sqm  
4) 64 sqm  
5) Other than those given as options

71. In terms of percentage profit, which of following is the best transaction?
1) CP 36, Profit 17  
2) CP 50, Profit 24  
3) CP 40, Profit 19  
4) CP 60, Profit 29  
5) Other than those given as options

72. The milk and water in two vessels A and B are in the ratio of 4 : 3 and 2 : 3 respectively. In what ratio should the liquids in both the vessels be mixed to obtain a new mixture in vessel C consisting of half milk and half water?
1) 8 : 3  
2) 7 : 5  
3) 4 : 3  
4) 2 : 3  
5) Other than those given as options

73. The average price of 10 books is ₹ 12 while the average price of 8 of these books is ₹ 11.75 Of the remaining two books, if the price of one book is 60% more than the price of the other, what is the price of each of these two books?
1) Rs.5, Rs.7.50  
2) Rs.8, Rs.12  
3) Rs.10, Rs.16  
4) Rs.12, Rs.14  
5) Other than those given as options

74. A fort has provisions for 60 days. If after 15 days 500 men strengthen them and the food lasts 40 days longer, then how many men are there in the fort?
1) 3500  
2) 4000  
3) 6000  
4) 8000  
5) Other than those given as options

75. If a commission of 10% is given on the marked price of a truck the dealer gains 20%. If the commission is increased to 15%, the gain % will be how much?
1) $\frac{40}{3}$  
2) 10  
3) 20  
4) 15  
5) Other than those given as options
76. If a carton containing a dozen of mirrors is dropped, then which of the following cannot be the ratio of the broken mirrors to the unbroken mirrors?

1) 7 : 5  
2) 3 : 1  
3) 3 : 2  
4) 2 : 1  
5) Cannot be determined

77. A bag contains Rs.216 in the form of Rs.1,50 paisa and 25-paisa coins in the ratio of 2 : 3 : 4. The number of 50-paisa coins is

1) 140  
2) 175  
3) 184  
4) 160  
5) 144

78. A is twice as fast as B and B is thrice as fast as C. The distance covered by C in 42 min will be covered by B in

1) 14 min  
2) 4 min  
3) 5 min  
4) 8 min  
5) 6 min

79. The CP of two dozen mangoes is Rs.32. After selling 18 mangoes at Rs.12 per dozen, the shopkeeper reduced the rate to Rs.4 per dozen. Then find the loss percentage

1) 15  
2) 20  
3) 25  
4) 37.5  
5) Other than those given as options

80. How many kilograms of sugar costing Rs.9 per kg must be mixed with 27 kg of sugar costing Rs.7 per kg so that there may be a gain of 10% by selling the mixture at Rs.9.24 per kg?

1) 60 kg  
2) 63 kg  
3) 50 kg  
4) 77 kg  
5) Other than those given as options

ANSWERS

1-1; 2-4; 3-3; 4-2; 5-5; 6-3; 7-3; 8-3; 9-3; 10-2; 11-5; 12-1; 13-1; 14-3; 15-5; 16-4; 17-1; 18-3; 19-5; 20-2; 21-1; 22-3; 23-4; 24-3; 25-3; 26-2; 27-4; 28-3; 29-5; 30-3; 31-2; 32-3; 33-3; 34-2; 35-2; 36-2; 37-4; 38-1; 39-4; 40-1; 41-5; 42-2; 43-3; 44-4; 45-1; 46-2; 47-4; 48-5; 49-2; 50-2; 51-5; 52-5; 53-2; 54-2; 55-4; 56-3; 57-2; 58-3; 59-4; 60-2; 61-3; 62-2; 63-1; 64-3; 65-3; 66-1; 67-1; 68-2; 69-1; 70-2; 71-4; 72-2; 73-3; 74-2; 75-1; 76-3; 77-5; 78-1; 79-4; 80-2.