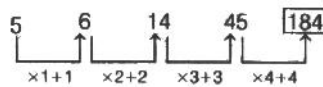
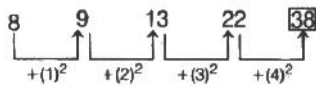


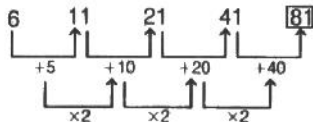
33. (5) Pattern of the series is



34. (5) Pattern of the series is



35. (1) Pattern of the series is



36. (1) Let the total distance travelled by Ajay be 16 km. Sum of time durations in which the distances travelled at 2 km/h, 4 km/h and 1 km/h were covered

$$= \frac{16/2}{2} + \frac{16/4}{4} + \frac{16/4}{1}$$

$$= 4 + 1 + 4 = 9 \text{ h}$$

Average speed

$$= \frac{\text{Total distance}}{\text{Total time}} = \frac{16}{9} \text{ km/h}$$

37. (5) Let the ages of Tarun and Varun be  $3x$  yr and  $7x$  yr, respectively.

According to the question,

Age of Varun after 4 yr = 39 yr

$$7x + 4 = 39$$

$$\Rightarrow 7x = 39 - 4$$

$$\Rightarrow x = \frac{35}{7} = 5$$

Tarun's age 4 yr ago =  $3x - 4$

$$= 3 \times 5 - 4 = 11 \text{ yr}$$

38. (5) Money got by  $M = \frac{3}{8} \times 44352$

$$= ₹ 16632$$

Remaining money =  $44352 - 16632$

$$= ₹ 27720$$

$\therefore$  Money got by  $N = \frac{1}{6} \times 27720$

$$= ₹ 4620$$

Further, remaining money

$$= 27720 - 4620$$

$$= ₹ 23100$$

Which was divided between O and P in the ratio of 3 : 4.

Therefore, money got by O\*

$$= \frac{3}{7} \times 23100$$

$$= ₹ 9900$$

39. (5) Let the five consecutive even numbers are  $2x$ ,  $2x + 2$ ,  $2x + 4$ ,  $2x + 6$  and  $2x + 8$ , respectively.

According to the questions,

$$2x + 2x + 2 + 2x + 4 + 2x + 6 + 2x + 8 = 170$$

$$\Rightarrow 10x + 20 = 170$$

$$\Rightarrow 10x = 150 \Rightarrow x = \frac{150}{10} = 15$$

$\therefore$  The five numbers are 30, 32, 34, 36 and 38, respectively.

$\therefore$  Required sum =  $(30)^2 + 36$

$$= 900 + 36 = 936$$

#### Alternate Method

Middle number

$$= \text{Average} = \frac{170}{5} = 34$$

30, 32, 34, 36, 38

So, the required sum

$$= 36 + (30)^2 = 36 + 900 = 936$$

40. (3) Suppose pipe A alone takes  $x$  h to fill the tank. Then, pipe B and C will take  $\frac{x}{2}$  and  $\frac{x}{4}$  h respectively to fill the tank

$$\therefore \frac{1}{x} + \frac{2}{x} + \frac{4}{x} = \frac{1}{5} \Rightarrow \frac{7}{x} = \frac{1}{5}$$

$$\Rightarrow x = 35 \text{ h}$$

41. (1) Concentration of wine in resultant solution

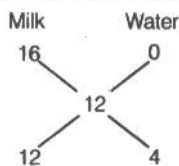
$$= \left( \frac{300 - 30}{300} \right)^3 \times 100 = 72.9\%$$

42. (1)  $\therefore$  SP of the mixture = ₹ 15

$$\therefore \text{CP of the mixture} = 15 \times \frac{100}{125}$$

$$= ₹ 12$$

Now, by the rule of mixture,



$\therefore$  Ratio of milk and water in the mixture = 12 : 4 = 3 : 1

43. (2) Given,  $P(\bar{A}) : P(A) = 5 : 3$

$$P(\bar{A}) = 5/8 \text{ and } P(A) = 3/8$$

$$P(B) : P(\bar{B}) = 4 : 5$$

$$P(B) = \frac{4}{9} \text{ and } P(\bar{B}) = 5/9$$

$P(\text{Exactly one of the event occurs})$

$$P(A \cap \bar{B}) + P(\bar{A} \cap B)$$

$$= P(A) \cdot P(\bar{B}) + P(\bar{A}) \cdot P(B)$$

$$= \frac{3}{8} \times \frac{5}{9} + \frac{4}{9} \times \frac{5}{8}$$

$$= \frac{15 + 20}{72} = \frac{35}{72}$$

44. (2) C's capital's

$$= 1 - \left( \frac{1}{2} + \frac{1}{8} \right) = 1 - \left( \frac{5}{8} \right) = \frac{3}{8}$$

Ratio of capital's of A, B and C

$$= \left( \frac{1}{2} \times \frac{1}{4} \right) : \left( \frac{1}{8} \times \frac{1}{2} \right) : \left( \frac{3}{8} \times 1 \right)$$

$$= \frac{1}{8} : \frac{1}{16} : \frac{3}{8} = 2 : 1 : 6$$

$$B's \text{ share} = \left( \frac{1}{9} \times 9900 \right) = ₹ 1100$$

45. (3) Let the average of 12 innings be  $x$ .

$$\text{Also, } \frac{12x + 96}{13} = x + 5$$

$$\Rightarrow 12x + 96 = 13x + 65$$

$$\Rightarrow x = 31$$

$\therefore$  Required average

$$= 31 + 5 = 36$$

46. (4)  $(47)^2 - (15)^2$

$$= (47 - 15)(47 + 15)$$

$$[: a^2 - b^2 = (a - b)(a + b)]$$

$$= 32 \times 62 = 1984$$

47. (3) ? = 81% of 4915 =  $\frac{81}{100} \times 4915$

$$\therefore ? = 3981.15$$

48. (1) ? =  $25 \times 43 + 5 = 25 \times 8.6$

$$\therefore ? = 215$$

49. (3) ? =  $93 + 26 \times 3 - 51$

$$= 93 + 78 - 51$$

$$\Rightarrow ? = 171 - 51$$

$$\therefore ? = 120$$

50. (1)  $1682 + 58 \times ? = 377$

$$\Rightarrow 29 \times ? = 377$$

$$\Rightarrow ? = \frac{377}{29}$$

$$\therefore ? = 13$$

51. (1)  $9786 - 4321 + 5053 = ? - 3727$

$$\Rightarrow 14839 - 4321 = ? - 3727$$

$$\Rightarrow 10518 = ? - 3727$$

$$\Rightarrow ? = 10518 + 3727$$

$$\therefore ? = 14245$$

52. (5)  $\frac{17}{24} + \frac{68}{24} \times \frac{380}{95} = (?)^2$

$$\Rightarrow \frac{17}{24} \times \frac{24}{68} \times \frac{380}{95} = (?)^2$$

$$\Rightarrow \frac{1}{4} \times \frac{380}{95} = (?)^2$$

$$\Rightarrow (?)^2 = \frac{95}{95} = 1 = (1)^2$$

$$\Rightarrow ? = 1$$

53. (3)  $\sqrt{324} + \sqrt{1296} = ?$

$$\Rightarrow 18 + 36 = ?$$

$$? = 54$$

54. (3)  $23 + 636 + 12 - 14 = ?$

$$\Rightarrow ? = 23 + 53 - 14$$

$$\Rightarrow ? = 76 - 14$$

$$\therefore ? = 62$$

55. (1)  $\frac{9}{5}$  of  $\frac{265}{513}$  of  $? = 159$

$$\Rightarrow \frac{9}{5} \times \frac{265}{513} \times ? = 159$$

$$\Rightarrow \frac{53}{57} \times ? = 159$$

$$\Rightarrow ? = 159 \times \frac{57}{53}$$

$$\Rightarrow ? = 171$$

56. (3)  $6.5 + 0.5 \times 2 - 4 = ?$

$$\Rightarrow 13 \times 2 - 4 = ?$$

$$\Rightarrow ? = 26 - 4$$

$$\Rightarrow ? = 22$$

57. (2) 3.3

13.33

31.13

13.31

+ 1.3

62.37

58. (4)  $(16)^2 + (21)^2 - (13)^2 + ? = (2)^2$

$$\Rightarrow 256 + 441 - 169 + ? = 62$$

$$\Rightarrow 697 - 169 + ? = 62$$

$$\Rightarrow 528 + ? = 62$$

$$\Rightarrow ? = 625 - 528$$

$$\therefore ? = 97$$

59. (2)  $47 + 345 + 15 \times 2 = ?$

$$\Rightarrow 47 + 23 \times 2 = ?$$

$$\therefore ? = 47 + 46 = 93$$

60. (5)  $73\%$  of  $5800 - 69\%$  of  $240 = ?$

$$\Rightarrow ? = \frac{73}{100} \times 5800 - \frac{69}{100} \times 240$$

$$\Rightarrow ? = 4234 - 165.6$$

$$\therefore ? = 4068.4$$

61. (5) Total quantity of food items consumed by Hotel C = 3409

Total quantity of food items consumed by Hotel E = 2915

Required Percentage

$$= \frac{3409 \times 100}{2915} = 116.95\%$$

$$= 117\% \text{ (Approx.)}$$

62. (1) Quantity of sugar and coffee consumed by Hotel D

$$= 476 + 28 = 504$$

Quantity of sugar and coffee consumed by Hotel F

$$= 533 + 83 = 616$$

$$\text{Required ratio} = \frac{504}{616} = 9:11$$

63. (3) Quantity of Rice consumed by Hotel A = 800

Quantity of Rice consumed by all the Hotels together

$$= 800 + 1098 + 890 + 960$$

$$= 5210 + 764 + 698$$

Required percentage

$$= \frac{800}{5210} \times 100 = 15.35$$

$$= 15\% \text{ (Approx.)}$$

64. (4) Average quantity of Wheat consumed by all the hotels together

$$= \frac{756 + 882 + 785 + 907 + 888 + 5216}{6}$$

Average quantity of vegetables consumed by all the hotels together

$$= \frac{434 + 387 + 625 + 432 + 375 + 2640}{6}$$

$$\text{Required ratio} = \frac{5216}{6} : \frac{2640}{6}$$

$$= (326 \times 16) : (165 \times 16)$$

$$= 326 : 165$$

65. (2) Total consumption by Hotel A

$$= 480 + 434 + 436 + 120 + 68$$

$$= 3094 + 800 + 756$$

Total consumption by Hotel B

$$= 524 + 387 + 512 + 100 + 54$$

$$= 3557 + 1098 + 882$$

Total consumption by Hotel C

$$= 490 + 625 + 463 + 78 + 78$$

$$= 3409 + 890 + 710$$

Total consumption by Hotel D

$$= 387 + 432 + 476 + 94 + 28$$

$$= 3284 + 960 + 90$$

Total consumption by Hotel E

$$= 266 + 375 + 449 + 108 + 65$$

$$= 2915 + 764 + 88$$

Total consumption by Hotel F

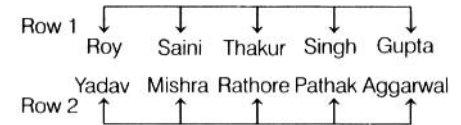
$$= 342 + 387 + 533 + 114 + 83$$

$$= 3155 + 698 + 99$$

$$= 3155$$

So, maximum consumption by Hotel B during the month.

Sol. (Q. Nos. 66-70)



66. (1) Saini is facing Mishra.

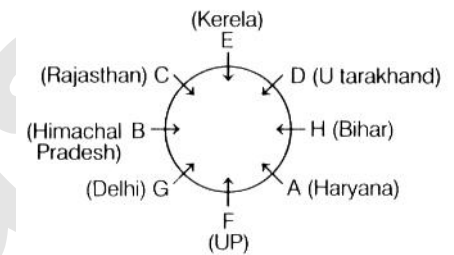
67. (4) Singh sits on the immediate right of Gupta, is true.

68. (2) Rathore is facing Thakur.

69. (3) Pathak is to the immediate left of Aggarwal.

70. (3) Except Saini, all others are sitting at one of the ends of the row.

Sol. (Q. Nos. 71-75)



71. (4) The person E who sits between C and D belongs to Kerela.

72. (2) B comes from Himachal Pradesh.

73. (1) H comes from Bihar.

74. (3) B comes from Himachal Pradesh.

75. (4) G comes from Delhi.

76. (5) After interchanging, the new words formed are  
OF R AWS ASY OMB ADD  
Only DAD forms a meaningful word.

77. (4) After arranging alphabets,  
FOR ASW ASY BMO ADD  
Now, arranging the words as per dictionary,  
ADD ASW ASY BMO FOR  
MOB(BMO) is second from the right end.

78. (2) After changing the consonants and the vowels as per English alphabetical series,  
EPQ VBR RBX LPA CBC  
Only in one word the alphabet appears twice, i.e. CBC

79. (1) Second from right end = MOB  
First letter = M  
Second from left end = WAS  
First letter = W  
Alphabets in between M and W = 9

80. (5) After changing the second alphabet to the next alphabet  
FPR WBS SBY MPB DBD  
None of them have vowel.

Sol. (Q. Nos. 81-85)

3rd floor	Vinayak-Mumbai	Empty
2nd floor	Vinay-Bangalore	Laxman -Chennai
1st floor	Rahul-Delhi	Noor-Kolkata

OR

3rd floor	Vinayak-Mumbai	Empty
2nd floor	Laxman-Delhi	Noor-Kolkata
1st floor	Vinay-Bangalore	Rahul-Chennai

81. (1) If Laxman is from Chennai, then Noor's roommate is from Delhi.  
82. (1) The city as well as floor of one person can be accurately deduced.  
83. (3) Correct match is Noor-Kolkata-2nd floor.  
84. (3) Yes, He stays on 3rd floor.  
85. (3) The exact floor of 3 people can be accurately deduced considering all possibilities.  
86. (1) According to the question, in the given arrangements no such symbols is immediately preceded by a number and immediately followed by a letter.

87. (5) Except 'E % \$' all other groups follows same pattern in the given arrangement.

88. (3) After dropping all the symbols, the given arrangement is  
F 3 9 H A D I 4 E M K 2 U R P 5 W 8 1  
T J V 7

Twelfth from the left

So, '2' number is twelfth from the left end.

89. (3) According to the question, in the given arrangement, 2 consonants are immediately preceded by a number and not immediately followed by a letter. Consonants are — 9 H @, 5 W δ.

90. (2) According to the question, in the given arrangement, '\$' symbol is the tenth to the left of the sixth element i.e. 8 from the right end.

91. (5) BKGQJN = 9@ \$ 7 @ % (condition iii)

92. (3) IJBRLG = \$ 89 ★ £ # (condition ii)

93. (5) Required pairs,



Hence, such pairs are EG, EF, DE and DF.

94. (3)  
Given number → 4 6 1 3 5 7 9  
Ascending order → 1 3 4 5 6 7 9

Hence, two digits 7 and 9 will remain unchanged.

95. (3) Meena's rank from top = 37 - 17  
= 20 th  
Total number of girls in the class  
= 46 + 20 - 1 = 65

96. (4)  $P < L \leq A > M = K \geq E$   
Conclusions I.  $K \leq L$  (False)  
II.  $P < E$  (False)  
So, neither Conclusion I nor II is true.

Sol. (Q. Nos. 97 and 98)

$$P > R = A < Y$$

$$D < A$$

$$\therefore P > R = A > D$$

$$\text{or } D < R = A < Y$$

97. (5) Conclusions  
I.  $P > D$  (True)  
II.  $D < Y$  (True)  
So, both the conclusions are true.

98. (2) Conclusions I.  $P < Y$  (False)  
II.  $R > D$  (True)  
So, only Conclusion II is true.

Sol. (Q. Nos. 99 and 100)

$$C \geq R > A = S \leq H$$

$$R < P < Q$$

$$\therefore Q > P > R > A = S \leq H,$$

$$\text{and } C \geq R < P < Q$$

99. (1) Conclusions I.  $C > S$  (True)  
II.  $P < C$  (False)  
So, only Conclusion I is true.

100. (2) Conclusions I.  $H \leq R$  (False)  
II.  $R < Q$  (True)  
So, only Conclusion II is true.

## > ANSWER KEY

- |         |         |         |         |         |         |         |         |         |          |
|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| 1. (d)  | 2. (c)  | 3. (e)  | 4. (e)  | 5. (c)  | 6. (a)  | 7. (b)  | 8. (d)  | 9. (b)  | 10. (b)  |
| 11. (a) | 12. (a) | 13. (c) | 14. (b) | 15. (d) | 16. (c) | 17. (b) | 18. (a) | 19. (c) | 20. (a)  |
| 21. (b) | 22. (b) | 23. (c) | 24. (c) | 25. (b) | 26. (a) | 27. (e) | 28. (c) | 29. (b) | 30. (d)  |
| 31. (d) | 32. (c) | 33. (e) | 34. (e) | 35. (a) | 36. (a) | 37. (e) | 38. (e) | 39. (e) | 40. (c)  |
| 41. (a) | 42. (a) | 43. (b) | 44. (b) | 45. (c) | 46. (d) | 47. (c) | 48. (a) | 49. (c) | 50. (a)  |
| 51. (a) | 52. (e) | 53. (c) | 54. (c) | 55. (a) | 56. (c) | 57. (b) | 58. (d) | 59. (b) | 60. (e)  |
| 61. (e) | 62. (a) | 63. (c) | 64. (d) | 65. (b) | 66. (a) | 67. (d) | 68. (b) | 69. (c) | 70. (c)  |
| 71. (d) | 72. (b) | 73. (a) | 74. (c) | 75. (d) | 76. (e) | 77. (d) | 78. (b) | 79. (a) | 80. (e)  |
| 81. (a) | 82. (a) | 83. (c) | 84. (c) | 85. (c) | 86. (a) | 87. (e) | 88. (c) | 89. (c) | 90. (b)  |
| 91. (e) | 92. (c) | 93. (e) | 94. (c) | 95. (c) | 96. (d) | 97. (e) | 98. (b) | 99. (a) | 100. (b) |