RRB Clerk Pre 2022 (13th August) Shift-Wise Previous Year Papers Mock 08

Directions (1-5): Study the following information carefully and answer the given questions:
Eight boxes are placed one above the other in a stack. There are three boxes placed between the box U and box Y. There are two boxes placed between the box Y and box S which is placed below box Y. There are three boxes placed between the box S and box X. There are two boxes placed between the box X and box T. Box W does not place immediately above box S. More than three boxes are placed between the box T and box Z. Box V is placed second from the topmost position.

Q1. Which of the following box is placed immediately above box V?
(a) Box Y
(b) Box U
(c) Box Z
(d) Box W
(e) None of these

Q2. How many boxes are placed between box U and box W?
(a) One
(b) Two
(c) Three
(d) Four
(e) None of these

Q3. Four of the following five are alike in a certain way and thus form a group, which of the following does not belong to that group?
(a) Z-X
(b) Y-T
(c) S-W
(d) V-T
(e) V-Y

Q4. How many boxes are placed below box U?
(a) One
(b) Two
(c) Three
(d) More than four
(e) None

Q5. Which of the following box is placed exactly in the middle of the box Z and box S?
(a) Box Y
(b) Box W
(c) Box X
(d) Box T
(e) None of these

Directions (6-8): **Study the following information carefully and answer the questions given below.**

Seven persons of a family are living in a house. There are three generations and three married couples in this family. Q is grandmother of T. S is the father-in-law of V. R has only two children. P is father of R who is a married woman. S is not the child of Q. U is the brother of T. There are four females in this family.

Q6. Who among the following is sister-in-law of T?
(a) R
(b) Q
(c) V
(d) S
(e) None of these

Q7. How is U related to P?
(a) Nephew
(b) Brother
(c) Son
(d) Grandson
(e) None of these

Q8. If L is husband of T, then how is L related to R?
(a) Father
(b) Son-in-law
(c) Son
(d) Father-in-law
(e) None of these

Q9. How many such pairs of letters are there in the word 'LEGENDARY' each of which has as many letters between them in the word as in the English alphabet (From both backward and forward)?
(a) Two
(b) One
(c) More than three
(d) Three
(e) None of these

Q10. Four of the following five are alike in a certain way and hence form a group. Which is the one that does not belong to that group?
(a) RSW
(b) STX
(c) OPT
(d) FGK
(e) LMP

Directions (11-15): In each of the questions some statements are given below 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.

Q11. Statements:
Only a few Rain are Water
All Water are Winter
No Water is Cold
Conclusions:
I: Some Winter are not Cold
II: Some Rain are not Cold
(a) If only conclusion I follows.
(b) If only conclusion II follows.
(c) If either conclusion I or II follows.
(d) If neither conclusion I nor II follows.
(e) If both conclusions I and II follow.

Q12. Statements:
Only a few Purple is White
No Purple is Yellow
Only a few Yellow are Black
Conclusions:
I: All White can never be Yellow
II: Some Black is Purple.
(a) If only conclusion I follows.
(b) If only conclusion II follows.
(c) If either conclusion I or II follows.
(d) If neither conclusion I nor II follows.
(e) If both conclusions I and II follow.

Q13. Statements:
All Rabbit are Horse.
All Horse are Dog.
Only a few Horse are Bird
Conclusions:
I. Some Bird being Dog is a possibility
II. No Rabbit is Bird
(a) If only conclusion I follows.
(b) If only conclusion II follows.
(c) If either conclusion I or II follows.
(d) If neither conclusion I nor II follows.
(e) If both conclusions I and II follow.

Q14. Statements:
Only a few Date is Year.
No Year is a Month.
All Months are Leap
Conclusions:
I. Some Leap are definitely not Year
II. Some Month are Date
(a) If only conclusion I follows.
(b) If only conclusion II follows.
(c) If either conclusion I or II follows.
(d) If neither conclusion I nor II follows.
(e) If both conclusions I and II follow.

Q15. Statements:
Only a few Family are Mother
Only a few Mother are Father
Only Father are Sister
Conclusions:
I: All Mother being Father is a possibility
II: Some Father are not Mother
(a) If only conclusion I follows.
(b) If only conclusion II follows.
(c) If either conclusion I or II follows.
(d) If neither conclusion I nor II follows.
(e) If both conclusions I and II follow.

Q16. Which of the following meaningful words cannot be formed with the help of the letters of the given word 'CRYPTOCURRENCY'?
(a) Rectum
(b) Concert
(c) Concur
(d) Tenor
(e) Corner

Directions (17-21): **Study the following information carefully and answer the given questions.**
Twelve persons are sitting in two parallel rows at an equal distance such that six persons sit in each row facing each other. A, B, C, D, E and F are sitting in Row 1 facing south. P, Q, R, S, T and U are sitting in Row 2 facing north (but not necessarily in the same order).
U sits third to the right of P and one of them sits at the end of the row. A sits at the right end of the row. Three persons sit between A and D. T sits to the immediate left of U. Two persons sit between T and Q. Q faces B and sits to the immediate right of S. C faces R. E sits to the immediate left of C.

Q17. Which of the following pair sits at the extreme ends of Row 2?
(a) P & S
(b) U & S
(c) P & Q
(d) U & Q
(e) None of these

Q18. Who sits second to the left of the person who is facing F?
(a) P
(b) R
(c) T
(d) Q
(e) U

Q19. What is the position of E with respect to B?
(a) 3rd to the left
(b) 2nd to the left
(c) 2nd to the right
(d) 3rd to the right
(e) None of these

Q20. Who is facing T?
(a) D
(b) E
(c) A
(d) C
(e) None of these

Q21. If all the persons sit in Row-2 are arranged as per the English alphabetical order from left to right, then who among the following faces R?
(a) A
(b) B
(c) C
(d) D
(e) None of these

Directions (22-25): In these questions, relationship between different elements is shown in the statements. The statements are followed by two conclusions. Give answer.

Q22.
Statements: Q > R =S; S ≥ T < V; V > B
Conclusions: I: Q>V   II: S≥B

(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.

Q23.
Statements: P<O≥K; K=U<W; W>D
Conclusions: I: O≥W   II: O≥U

(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.

Q24.
Statements: X>C>V; V≤E<R; R>T
Conclusions: I: X>E   II: V≥T

(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.

Q25.
Statements: S>D<F; F=G≥C; C>M
Conclusions: I: F>M   II: S≥C

(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.

Directions (26-30): Study the following information carefully and answer the questions given below.
Eight persons K, L, M, N, O, P, Q and R are sitting around a circle facing the centre but not necessarily in the same order. L is an immediate neighbour of K who faces P. O sits second to the right of K. R is an immediate neighbour of O and faces N. M is an immediate neighbour of N. L is not an immediate neighbour of O.

Q26. Who among the following sits second to the left of R?
(a) K
(b) L
(c) M
(d) N
(e) None of these

Q27. How many persons sit between O and M?
(a) One
(b) Two
(c) Three
(d) Four
(e) None of these

Q28. Four of the following five are alike in a certain way and form a group, which among the following does not belong to that group?
(a) N, L
(b) M, K
(c) R, Q
(d) P, N
(e) O, P

Q29. Who among the following sits third to the left of the one who sits second to the right of O?
(a) L
(b) R
(c) Q
(d) M
(e) None of these

Q30. Who sits third to the left of N?
(a) K
(b) R
(c) L
(d) Q
(e) O

Directions (31-35): Study the following alphanumeric symbol series carefully and answer the questions given below.
1 % K $ E J B € * 2 H O @ L 6 Q 9 M T U F 7 D 5 # A © 8 W

Q31. How many such symbols are there in the above arrangement each of which is immediately preceded by a vowel and also immediately followed by a number?
(a) None
(b) One
(c) Two
(d) Three
(e) Four

Q32. How many such numbers are there in the above arrangement each of which is immediately preceded by a symbol and also immediately followed by a letter?
(a) None
(b) One
(c) Two
(d) Three
(e) Four

Q33. Which of the following element is 8th from the right of the element which is 13th from the left end?
(a) F
(b) 7
(c) D
(d) 5
(e) None of these

Q34. Which of the following element is 9th to the right of the element which is 20th from the right end?
(a) F
(b) 9
(c) D
(d) T
(e) None of these

Q35. How many such letters are there in the above series each of which is immediately preceded and immediately followed by a symbol?
(a) One
(b) Three
(c) None
(d) Two
(e) Four

Directions (36-40): **Study the following information carefully to answer the given questions:**
Seven employees of a company are working at seven different designations of a company viz. CMD, MD, CEO, COO, SE, JE and Trainee. All the designations are given in descending order such as CMD is considered as Senior-most and Trainee is considered as the Junior-most designation.
Only two persons are senior to A. There is only one designation between A and C. E is junior to G. There are three designations between B and F who is senior to A. G is just junior to D.

Q36. Who among the following is a trainee of the company?
(a) D
(b) B
(c) G
(d) E
(e) None of these

Q37. Who among the following is just senior to D?
(a) C
(b) B
(c) A
(d) E
(e) None of these

Q38. How many persons are posted between E and F?
(a) Two
(b) More than three
(c) Three
(d) One
(e) None of these

Q39. What is the designation of G in the company?
(a) SE
(b) JE
(c) COO
(d) CMD
(e) None of these

Q40. Which of the following statement is true about D?
(a) D is CMD of the company
(b) D is just junior to F
(c) C is junior to D
(d) More than two persons are junior to D
(e) None is true

Directions (41-45): Study the bar graph carefully and answer the following questions.
The bar graph shows the runs scored by two different teams in a series of five cricket matches.
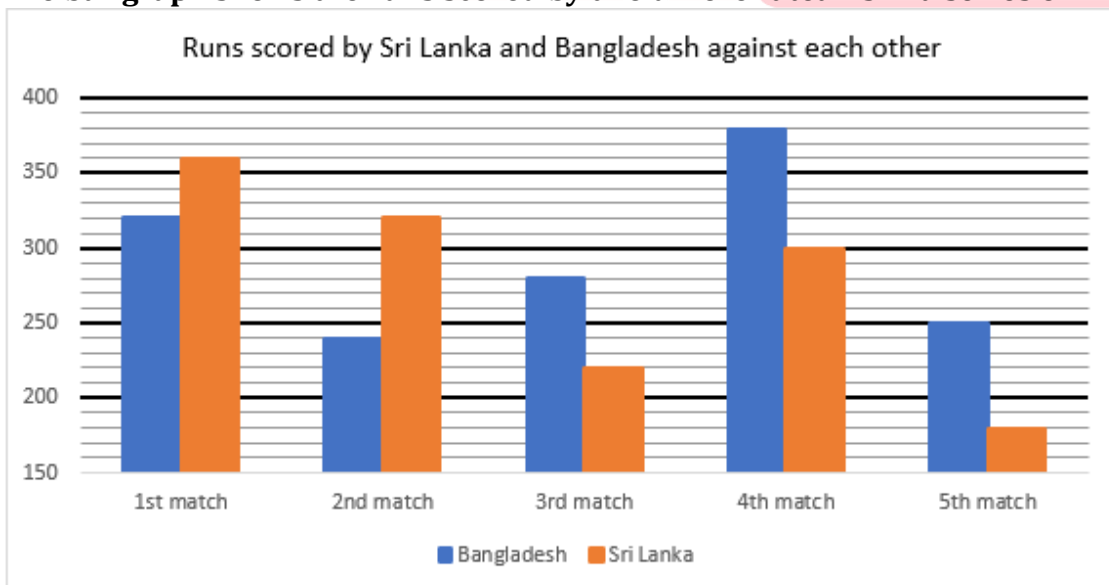
Q41. Runs scored by Bangladesh in first and third match together is what percent of runs scored by Sri Lanka in second and fifth match together?
(a) 100%
(b) 125%
(c) 83 ⅓%
(d) 120%
(e) 75%

Q42. Find the difference between maximum runs scored by Sri Lanka and minimum runs scored by Bangladesh.
(a) 120 runs
(b) 80 runs
(c) 150 runs
(d) 200 runs
(e) 180 runs

Q43. What is the ratio between total runs scored by Bangladesh to that of Sri Lanka in all matches?
(a) 25 :23
(b) 46 :47
(c) 43 :46
(d) 49 :46
(e) 23 :43

Q44. Runs scored by Bangladesh in second match is what percent more or less than runs scored by Sri Lanka in fourth match?
(a) 25%
(b) 20%
(c) 35%
(d) 10%
(e) 50%

Q45. Bangladesh won how many matches out of all the five matches?
(a) 1
(b) 4
(c) 3
(d) 5
(e) 2

Directions (46-50): Study the table given below and answer the following questions.
Table gives information about units of 5 different types of biscuits sold by a store in 2017 & 2018.

Biscuits	2017	2018
Bourbon	1200	1500
Oreo	1800	2000
Dark Fantasy	400	800
Hide & seek	1000	1500
Jim Jam	900	1000

Q46. Dark Fantasy & Jim Jam sold by store in 2018 together are what percent of Bourbon sold by store in 2017?
(a) 180%
(b) 150%
(c) 120%
(d) 90%
(e) 60%

Q47. Find difference between average of units sold of Bourbon, Oreo & Jim Jam by store in 2017 and units sold of Bourbon by the store in 2018.
(a) 500
(b) 100
(c) 400
(d) 200
(e) 300

Q48. If units of Oreo sold by store in 2019 are 30% more than that of in 2017 and units of Jim Jam sold by store in 2019 are 40% more than that of in 2018, then find units of Oreo and Jim Jam together sold by store in 2019.
(a) 3740 units
(b) 3560 units
(c) 2980 units
(d) 3120 units
(e) 3380 units

Q49. Dark Fantasy & Hide & Seek together sold by store in 2017 are what percent more or less than Oreo & Hide & Seek together sold by store in 2018?
(a) 50%
(b) 60%
(c) 90%
(d) 80%
(e) 70%

Q50. If per unit selling price of Dark Fantasy is Rs.30 in 2017 & 2018, then find revenue earned by the store by selling Dark Fantasy in 2017 & 2018 together.

(a) Rs.32000
(b) Rs.48000
(c) Rs.40000
(d) Rs.36000
(e) Rs.45000

Directions (51-65): What will come in place of question mark(?) in the following questions.

Q51. $2\frac{1}{3} + 5\frac{2}{3} - 3\frac{3}{4} = ? - 8\frac{3}{4}$

(a) 14
(b) 13
(c) 12
(d) 15
(e) 16

Q52. $\frac{2^5 \times 3^6}{9^2 \times 4^2} + 7 = (?)^2$

(a) 4
(b) 5
(c) 7
(d) 6
(e) 3

Q53. $9097 \div 11 \div 10 = ? + 15.7$

(a) 87
(b) 77
(c) 67
(d) 57
(e) 47

Q54. $15 \times 12 - 10 \times 11 = -15 \times 17 + ?$

(a) 330
(b) 345
(c) 335
(d) 325
(e) 365

Q55. $35 \times 5 + 19 \times 7 + ? = (20)^2$

(a) 95
(b) 103
(c) 97
(d) 92
(e) 90

Q56. $? \div 9 \times 17 = 1156$
(a) 702
(b) 504
(c) 558
(d) 612
(e) 666

Q57. $96 \div 168 \times 588 \div 12 = ?$
(a) 28
(b) 32
(c) 22
(d) 27
(e) 35

Q58. $11\frac{1}{9}\% \ of \ 873 - ? = \sqrt{2116}$
(a) 60
(b) 51
(c) 55
(d) 58
(e) 49

Q59. $2\frac{4}{7} + 4\frac{1}{3} - 3\frac{2}{3} + \frac{16}{21} = ?$
(a) 4
(b) 5
(c) 3
(d) 7
(e) 6

Q60. $(? \times 48) \div 54 + 8^2 = 96$
(a) 45
(b) 36
(c) 72
(d) 54
(e) 27

Q61. $4520 + 3560 - 2680 + 1680 = ?$
(a) 7050
(b) 7080
(c) 8080
(d) 6080
(e) 5080

Q62. $\frac{11}{23} \times 6969 + 55 \times 20 - 200 =?$

(a) 4122

(b) 4222

(c) 4233

(d) 4344

(e) 4455

Q63. $\sqrt{256 \times 81 \times 4} - 160 \times 2.5 + 400 =?$

(a) 248

(b) 348

(c) 358

(d) 288

(e) 378

Q64. $250\% \; of \; 1600 - 320 \times \frac{3}{8} + 1120 = ?$

(a) 3000

(b) 4000

(c) 5000

(d) 6000

(e) 7000

Q65. $5400 - (3 \times 1450 \div 2) + 175 = ?$

(a) 3200

(b) 3400

(c) 3500

(d) 3600

(e) 3700

Q66. Train A travelling at 72 kmph crosses another train B, travelling in opposite direction at 54 kmph in 48 seconds and length of train B is half of the length of train A. train A passed a railway platform in 72 seconds. Find the length of the platform.

(a) 240 m

(b) 600 m

(c) 320 m

(d) 450 m

(e) 360 m

Q67. In a series of 11 matches of Cricket, average runs of Virat Kohli is 85. In first 4 matches his average runs was 72 and in next 6 matches his average runs was 90. How many runs scored by Virat Kohli in last match?

(a) 115
(b) 120
(c) 107
(d) 97
(e) 112

Q68. 4 Men can complete a task in 80 days working 9 hours a day. Find how much time 6 women will take to complete the same task with 80% of man's efficiency working 8 hours a day?
(a) 120 days
(b) 75 days
(c) 125 days
(d) 90 days
(e) 50 days

Q69. Radius of a circle whose area is 38.5 cm² is what percent of 21 cm length?
(a) 20%
(b) 12.5%
(c) 8 ⅓%
(d) 16 ⅔%
(e) 25%

Q70. Ratio of two numbers is 4 : 5. If 40 is added in each number, the ratio becomes 5 : 6. Find the ratio of the number if 10 is subtracted from each number.
(a) 15 : 19
(b) 3 : 4
(c) 7 : 9
(d) 9 : 11
(e) 11 : 13

Q71. If a rectangular iron slab of length, breadth and thickness of 24 cm, 18 cm and 4 cm respectively is melted to form a cube, then find the side cube.
(a) 12 cm
(b) 10 cm
(c) 16 cm
(d) 15 cm
(e) 18 cm

Q72. 50% of a mixture containing water and Spirit in ratio 1 : 2 is mixed with 40% of another mixture containing syrup and water in ratio 3 : 2 so that ratio of syrup: water : spirit becomes 12 : 13 : 10 in the final mixture. If spirit in initial mixture is 40 liters, Find total quantity of water and syrup in final mixture?
(a) 25 liters
(b) 50 liters
(c) 75 liters
(d) 15 liters
(e) None of these

Q73. P invested a sum of Rs. 15332 in two schemes for two years, one at 5% per annum on simple interest and another at 10% per annum S.I and got total interest of Rs. 2334.8 (after 2 years). Find sum invested at 10% per annum?
(a) Rs. 7316
(b) Rs. 7016
(c) Rs. 8316
(d) Rs. 8016
(e) None of these

Q74. A and B invested Rs. 1000 and Rs. 1600 in a business respectively. After four months, B withdrew 50% of his initial investment and again after four months he reinvested 50% of amount of what he withdrawn. After a year they got total profit of Rs. 3509, Find profit share of A (in Rs.)?
(a) 1914
(b) 1595
(c) 1605
(d) 1714
(e) none of these.

Q75. A shopkeeper gives a discount on an article and earns a profit equal to given discount after selling the article at price of Rs 500. Find the cost price of article if he makes a profit of 50% when he sold the article at marked price.
(a) Rs 200
(b) Rs 300
(c) Rs 400
(d) Rs 500
(e) Rs 600

Directions (76-80): Find the missing number in the following series.

Q76. 1, 35, 63, 85, 101, ?
(a) 121
(b) 125
(c) 101
(d) 105
(e) 111

Q77. 5, 10, 30, 150, ?, 11550
(a) 1050
(b) 2400
(c) 1700
(d) 500
(e) 1250

Q78. 5, 11, 23, ?, 65, 95
(a) 33
(b) 54
(c) 41
(d) 39
(e) 51

Q79. 5, 17, 65, 257, 1025, ?
(a) 3087
(b) 3907
(c) 4107
(d) 4097
(e) 4201

Q80. 313, 300, 282, 254, 221, ?
(a) 178
(b) 200
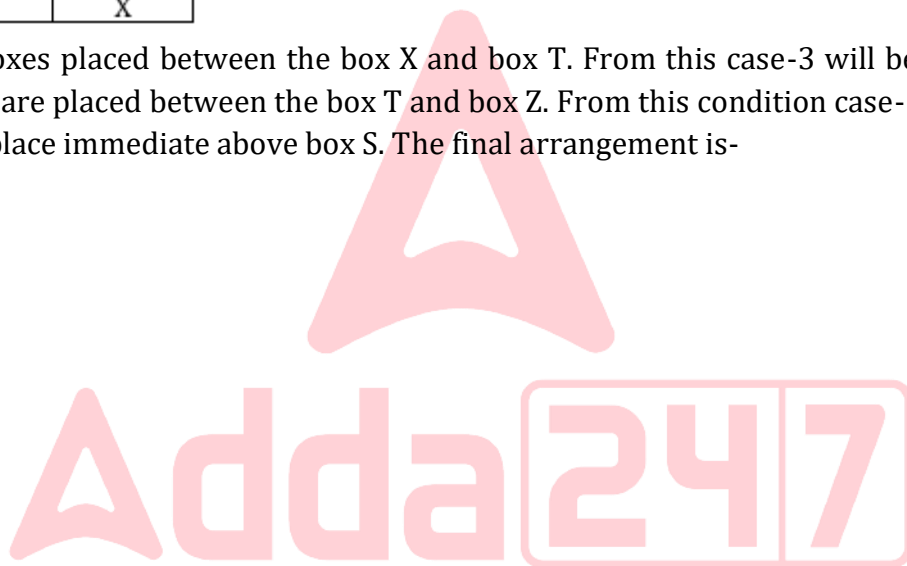(c) 208
(d) 180
(e) 198

Solutions

S1. Ans.(c)
Sol. From the given information, there are three boxes placed between the box U and box Y. There are two boxes placed between the box Y and box S which is placed below box Y. There are three boxes placed between the box S and box X. Box V is placed second from the topmost position. There are three possibilities:

Case-1	Case-2	Case-3
Boxes	Boxes	Boxes
U		Y
V	V	V
	X	
X	Y	S
Y		U
	S	
S	U	X

There are two boxes placed between the box X and box T. From this case-3 will be eliminated. More than three boxes are placed between the box T and box Z. From this condition case-1 will be ruled out. Box W does not place immediate above box S. The final arrangement is-

Boxes
Z
V
X
Y
W
T
S
U

S2. Ans.(b)
Sol. From the given information, there are three boxes placed between the box U and box Y. There are two boxes placed between the box Y and box S which is placed below box Y. There are three boxes placed between the box S and box X. Box V is placed second from the topmost position. There are three possibilities:

Case-1	Case-2	Case-3
Boxes	Boxes	Boxes
U		Y
V	V	V
	X	
X	Y	S
Y		U
	S	
S	U	X

There are two boxes placed between the box X and box T. From this case-3 will be eliminated. More than three boxes are placed between the box T and box Z. From this condition case-1 will be ruled out. Box W does not place immediate above box S. The final arrangement is-

Boxes
Z
V
X
Y
W
T
S
U

S3. Ans.(d)
Sol. From the given information, there are three boxes placed between the box U and box Y. There are two boxes placed between the box Y and box S which is placed below box Y. There are three boxes placed between the box S and box X. Box V is placed second from the topmost position. There are three possibilities:
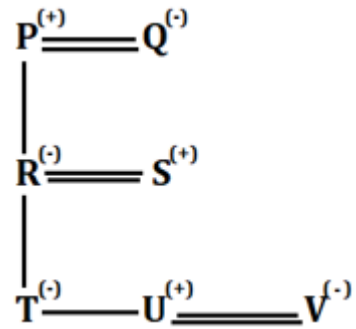
Case-1	Case-2	Case-3
Boxes	Boxes	Boxes
U		Y
V	V	V
	X	
X	Y	S
Y		U
	S	
S	U	X

There are two boxes placed between the box X and box T. From this case-3 will be eliminated. More than three boxes are placed between the box T and box Z. From this condition case-1 will be ruled out. Box W does not place immediate above box S. The final arrangement is-
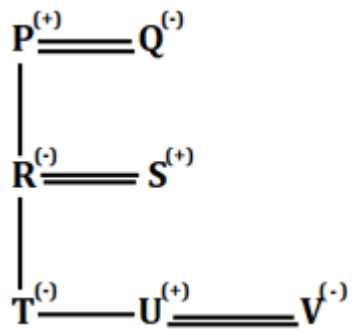
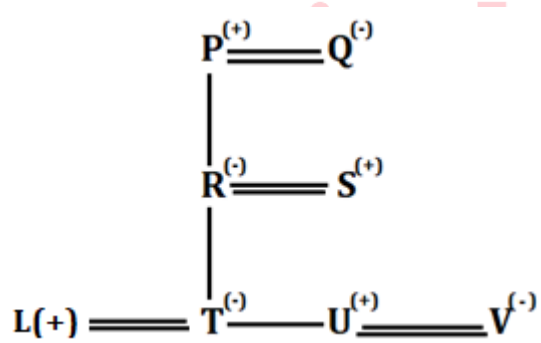| Boxes |
| --- |
| Z |
| V |
| X |
| Y |
| W |
| T |
| S |
| U |

S4. Ans.(e)
Sol. From the given information, there are three boxes placed between the box U and box Y. There are two boxes placed between the box Y and box S which is placed below box Y. There are three boxes placed between the box S and box X. Box V is placed second from the topmost position. There are three possibilities:

Case-1	Case-2	Case-3
Boxes	Boxes	Boxes
U		Y
V	V	V
	X	
X	Y	S
Y		U
	S	
S	U	X

There are two boxes placed between the box X and box T. From this case-3 will be eliminated. More than three boxes are placed between the box T and box Z. From this condition case-1 will be ruled out. Box W does not place immediate above box S. The final arrangement is-

Boxes
Z
V
X
Y
W
T
S
U

S5. Ans.(a)
Sol. From the given information, there are three boxes placed between the box U and box Y. There are two boxes placed between the box Y and box S which is placed below box Y. There are three boxes placed between the box S and box X. Box V is placed second from the topmost position. There are three possibilities:

Case-1	Case-2	Case-3
Boxes	Boxes	Boxes
U		Y
V	V	V
	X	
X	Y	S
Y		U
	S	
S	U	X

There are two boxes placed between the box X and box T. From this case-3 will be eliminated. More than three boxes are placed between the box T and box Z. From this condition case-1 will be ruled out. Box W does not place immediate above box S. The final arrangement is-

Boxes
Z
V
X
Y
W
T
S
U

S6. Ans.(c)
Sol.

P$^{(+)}$═══Q$^{(-)}$
|
R$^{(-)}$═══S$^{(+)}$
|
T$^{(-)}$────U$^{(+)}$═══════V$^{(-)}$

S7. Ans.(d)
Sol.

P$^{(+)}$═══Q$^{(-)}$
|
R$^{(-)}$═══S$^{(+)}$
|
T$^{(-)}$────U$^{(+)}$═══════V$^{(-)}$

S8. Ans.(b)
Sol.

P$^{(+)}$═══Q$^{(-)}$
|
R$^{(-)}$═══S$^{(+)}$
|
L(+) ═══ T$^{(-)}$────U$^{(+)}$═══════V$^{(-)}$

S9. Ans.(b)
Sol.

L E G E N D A R Y
└───┘

S10. Ans.(e)
Sol.
Series pattern R +1 = S, S + 4 = W

S11. Ans.(e)
Sol.
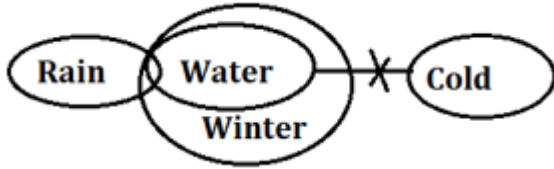
S12. Ans.(a)
Sol.
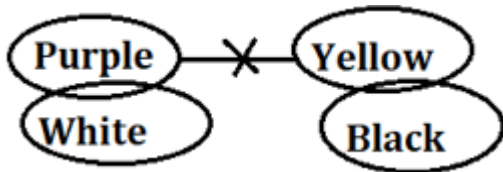
S13. Ans.(d)
Sol.
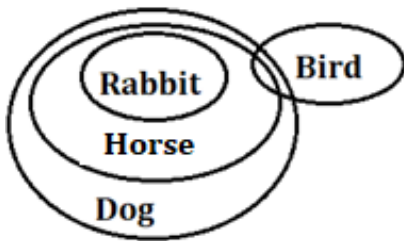
S14. Ans.(a)
Sol.
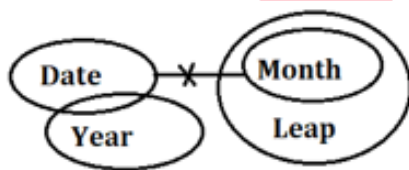
S15. Ans.(b)
Sol.
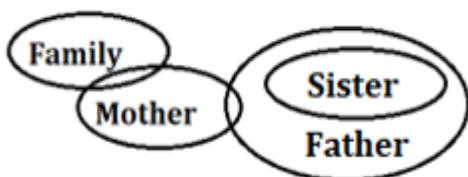
S16. Ans.(a)

S17. Ans.(c)
Sol. U sits third to the right of P and one of them sits at the end of the row. A sits at the right end of the row. Three persons sit between A and D. T sits to the immediate left of U. Two persons sit between T and Q. Q faces B and sits to the immediate right of S. C faces R. There will be two possibilities.
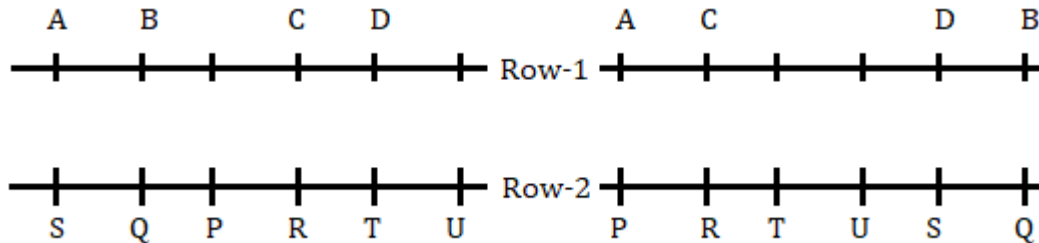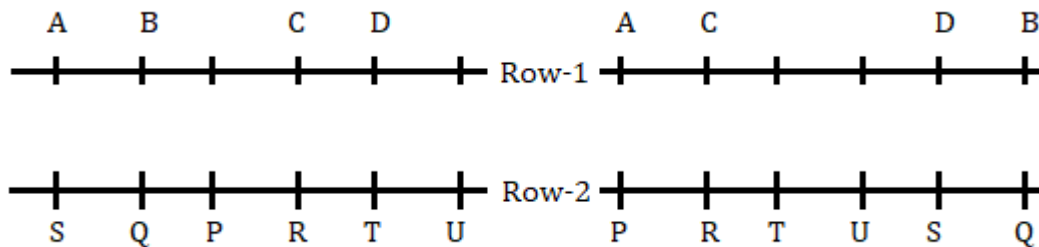

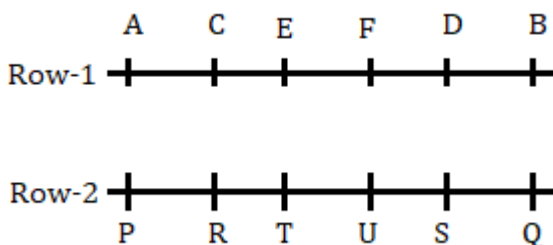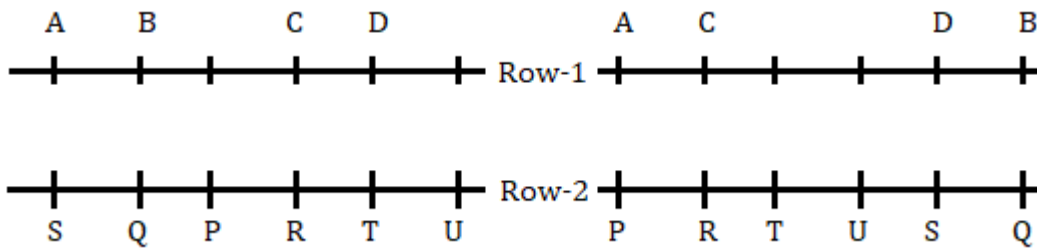E sits to the immediate left of C. So, case 1 will be eliminated. The final arrangement is:
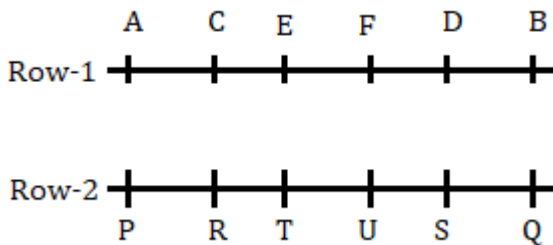
S18. Ans.(b)
Sol. U sits third to the right of P and one of them sits at the end of the row. A sits at the right end of the row. Three persons sit between A and D. T sits to the immediate left of U. Two persons sit between T and Q. Q faces B and sits to the immediate right of S. C faces R. There will be two possibilities.

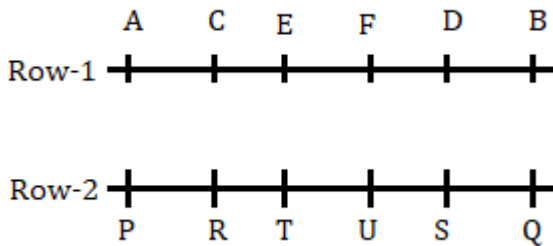E sits to the immediate left of C. So, case 1 will be eliminated. The final arrangement is:

S19. Ans.(d)
Sol. U sits third to the right of P and one of them sits at the end of the row. A sits at the right end of the row. Three persons sit between A and D. T sits to the immediate left of U. Two persons sit between T and Q. Q faces B and sits to the immediate right of S. C faces R. There will be two possibilities.
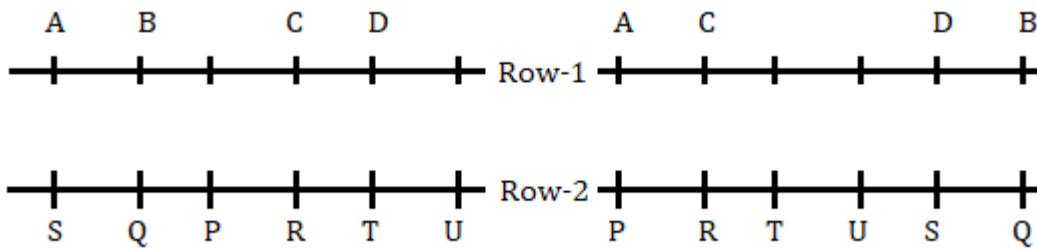
	A	B		C	D			A	C			D	B

Row-1

Row-2

| | S | Q | P | R | T | U | | P | R | T | U | S | Q |

E sits to the immediate left of C. So, case 1 will be eliminated. The final arrangement is:

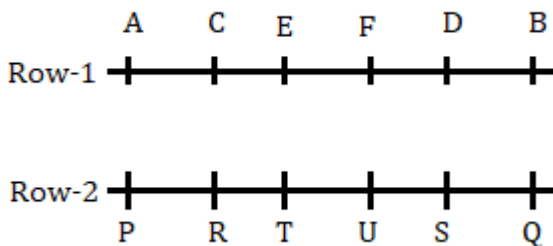|	A	C	E	F	D	B

Row-1

Row-2

| | P | R | T | U | S | Q |

S20. Ans.(b)
Sol. U sits third to the right of P and one of them sits at the end of the row. A sits at the right end of the row. Three persons sit between A and D. T sits to the immediate left of U. Two persons sit between T and Q. Q faces B and sits to the immediate right of S. C faces R. There will be two possibilities.
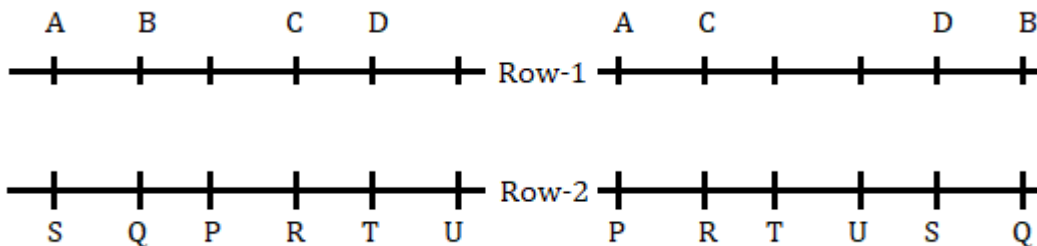
	A	B		C	D			A	C			D	B

Row-1

Row-2

| | S | Q | P | R | T | U | | P | R | T | U | S | Q |

E sits to the immediate left of C. So, case 1 will be eliminated. The final arrangement is:

	A	C	E	F	D	B

Row-1

Row-2

| | P | R | T | U | S | Q |

S21. Ans.(e)
Sol. U sits third to the right of P and one of them sits at the end of the row. A sits at the right end of the row. Three persons sit between A and D. T sits to the immediate left of U. Two persons sit between T and Q. Q faces B and sits to the immediate right of S. C faces R. There will be two possibilities.

	A	B		C	D			A	C			D	B

Row-1

Row-2

| | S | Q | P | R | T | U | | P | R | T | U | S | Q |

E sits to the immediate left of C. So, case 1 will be eliminated. The final arrangement is:
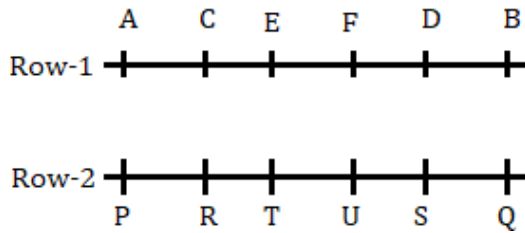
S22. Ans.(d)
Sol. I: Q>V (False) II: S≥B (False)

S23. Ans.(b)
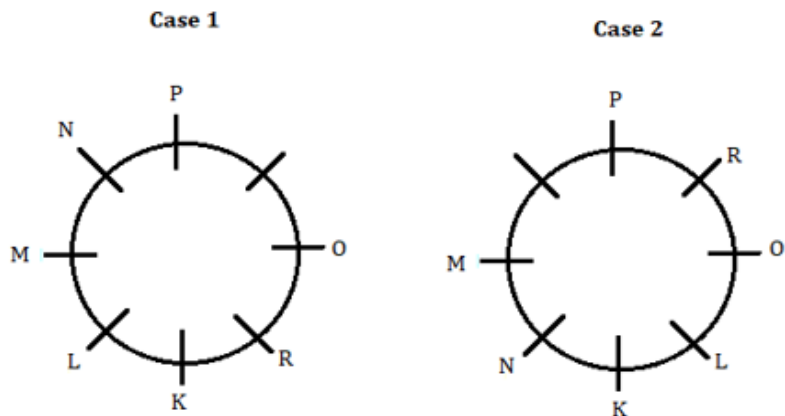**Sol.** I: O≥W (False) II: O≥U (True)

S24. Ans.(d)
Sol. I: X>E (False) II: V≥T (False)

S25. Ans.(a)
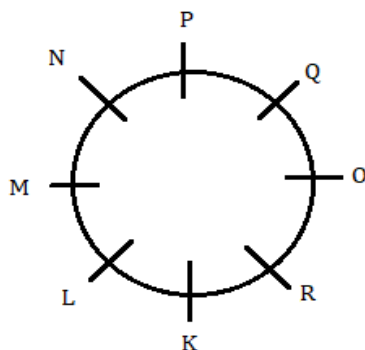**Sol.** I: F>M (True) II: S≥C (False)

S26. Ans.(b)
Sol. L is an immediate neighbour of K who faces P. We get two possibilities- Case 1 and Case 2. O sits second to the right of K. R is an immediate neighbour of O and faces N. M is an immediate neighbour of N.
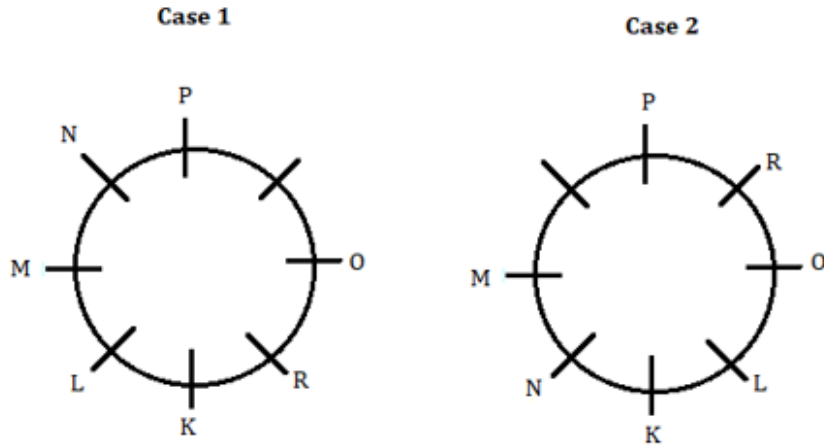

L is not an immediate neighbour of O. Here Case 2 is ruled out now. The final arrangement is-

S27. Ans.(c)
Sol. L is an immediate neighbour of K who faces P. We get two possibilities- Case 1 and Case 2. O sits second to the right of K. R is an immediate neighbour of O and faces N. M is an immediate neighbour of N.

L is not an immediate neighbour of O. Here Case 2 is ruled out now. The final arrangement is-
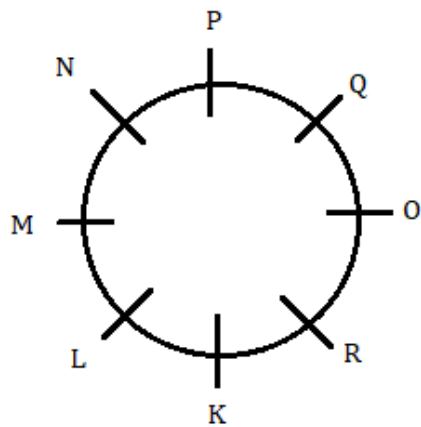

S28. Ans.(d)
Sol. L is an immediate neighbour of K who faces P. We get two possibilities- Case 1 and Case 2. O sits second to the right of K. R is an immediate neighbour of O and faces N. M is an immediate neighbour of N.
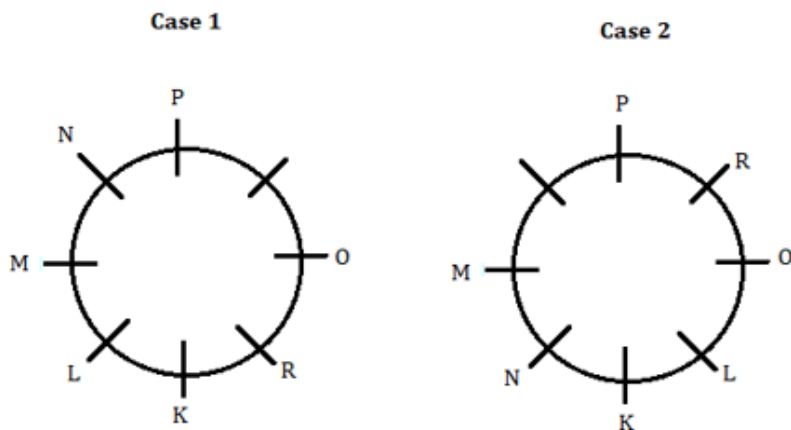
L is not an immediate neighbour of O. Here Case 2 is ruled out now. The final arrangement is-
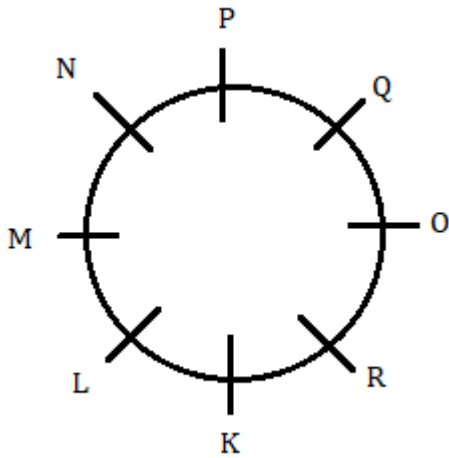

S29. Ans.(b)
Sol. L is an immediate neighbour of K who faces P. We get two possibilities- Case 1 and Case 2. O sits second to the right of K. R is an immediate neighbour of O and faces N. M is an immediate neighbour of N.

Case 1   Case 2

L is not an immediate neighbour of O. Here Case 2 is ruled out now. The final arrangement is-

S30. Ans.(e)
Sol. L is an immediate neighbour of K who faces P. We get two possibilities- Case 1 and Case 2. O sits second to the right of K. R is an immediate neighbour of O and faces N. M is an immediate neighbour of N.
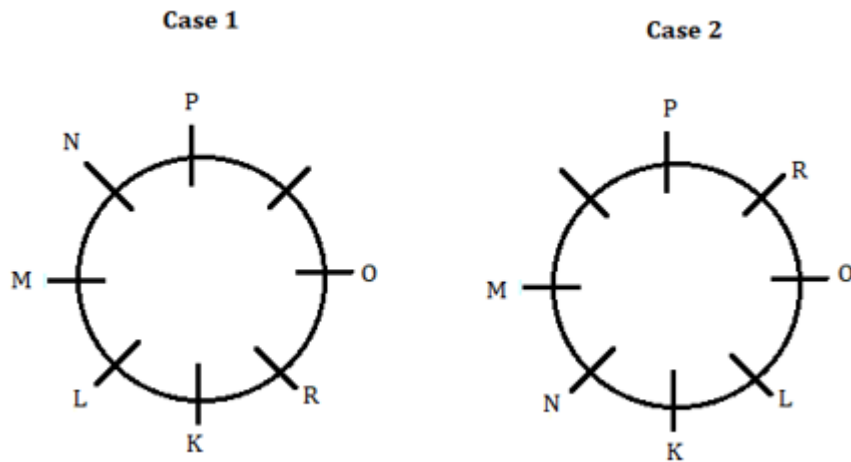
L is not an immediate neighbour of O. Here Case 2 is ruled out now. The final arrangement is-
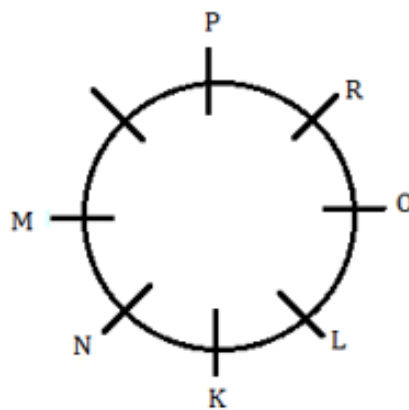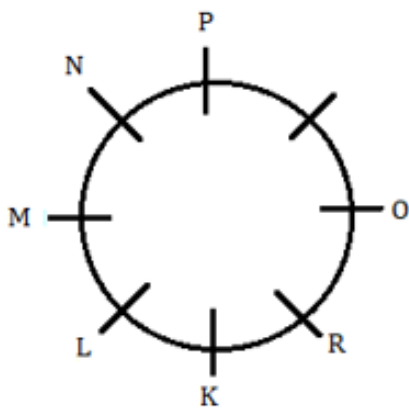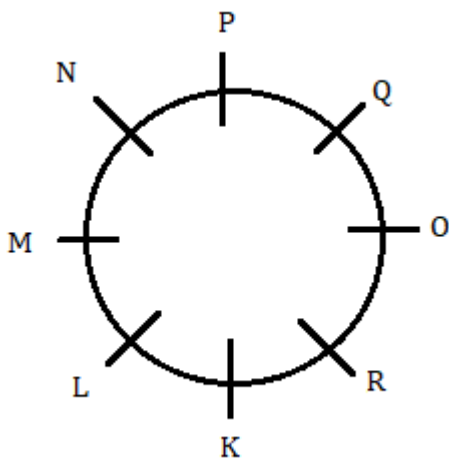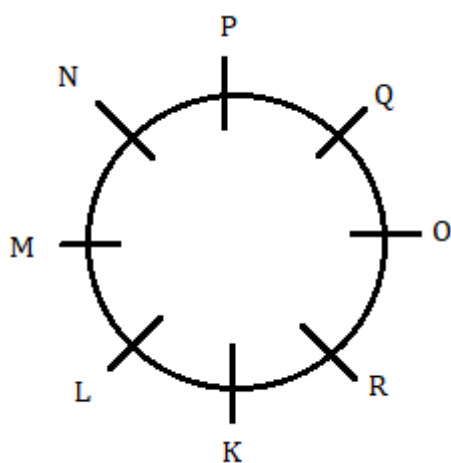

S31. Ans.(b)
Sol. A © 8

S32. Ans.(c)
Sol. * 2 H, © 8 W

S33. Ans.(a)
Sol. 8th from the right of the element which is 13th from the left end, i.e. 13 + 8 =21st from the left end= F

S34. Ans.(d)
Sol. 9th to the right of the element which is 20th from the right end, i.e. 20 – 9 = 11th from the right end= T

S35. Ans.(d)
Sol. % K $, # A ©

S36. Ans.(d)
Sol. Only two persons are senior to A. There is only one designation between A and C. There are two possibilities. There are three designations in between B and F, who is senior to A.

Designations	Case-1	Case-2
	Persons	Persons
CMD		C
MD	F	F
CEO	A	A
COO		
SE	C	
JE	B	B
Trainee		

G is just junior to D. Here Case 1 is ruled out now. E is junior to G. The final arrangement is-

Designations	Persons
CMD	C
MD	F
CEO	A
COO	D
SE	G
JE	B
Trainee	E

S37. Ans.(c)
Sol. Only two persons are senior to A. There is only one designation between A and C. There are two possibilities. There are three designations in between B and F, who is senior to A.

Designations	Case-1	Case-2
	Persons	Persons
CMD		C
MD	F	F
CEO	A	A
COO		
SE	C	
JE	B	B
Trainee		

G is just junior to D. Here Case 1 is ruled out now. E is junior to G. The final arrangement is-

Designations	Persons
CMD	C
MD	F
CEO	A
COO	D
SE	G
JE	B
Trainee	E

S38. Ans.(b)
Sol. Only two persons are senior to A. There is only one designation between A and C. There are two possibilities. There are three designations in between B and F, who is senior to A.

Designations	Case-1 Persons	Case-2 Persons
CMD		C
MD	F	F
CEO	A	A
COO		
SE	C	
JE	B	B
Trainee		

G is just junior to D. Here Case 1 is ruled out now. E is junior to G. The final arrangement is-

Designations	Persons
CMD	C
MD	F
CEO	A
COO	D
SE	G
JE	B
Trainee	E

S39. Ans.(a)
Sol. Only two persons are senior to A. There is only one designation between A and C. There are two possibilities. There are three designations in between B and F, who is senior to A.

Designations	Case-1 Persons	Case-2 Persons
CMD		C
MD	F	F
CEO	A	A
COO		
SE	C	
JE	B	B
Trainee		

G is just junior to D. Here Case 1 is ruled out now. E is junior to G. The final arrangement is-

Designations	Persons
CMD	C
MD	F
CEO	A
COO	D
SE	G
JE	B
Trainee	E

S40. Ans.(d)
Sol. Only two persons are senior to A. There is only one designation between A and C. There are two possibilities. There are three designations in between B and F, who is senior to A.

Designations	Case-1	Case-2
	Persons	Persons
CMD		C
MD	F	F
CEO	A	A
COO		
SE	C	
JE	B	B
Trainee		

G is just junior to D. Here Case 1 is ruled out now. E is junior to G. The final arrangement is-

Designations	Persons
CMD	C
MD	F
CEO	A
COO	D
SE	G
JE	B
Trainee	E

S41. Ans.(d)
Sol.

Required percentage $= \dfrac{320+280}{320+180} \times 100$

$= \dfrac{600}{500} \times 100 = 120\%$

S42. Ans.(a)
Sol. Required difference $= 360 - 240 = 120 \; runs$

S43. Ans.(d)
Sol.

Required ratio $= \dfrac{320+240+280+380+250}{360+320+220+300+180} = \dfrac{1470}{1380}$

$= \dfrac{49}{46}$

S44. Ans.(b)
Sol.

Required percentage $= \dfrac{300-240}{300} \times 100$

$= 20\%$

S45. Ans.(c)
Sol. from graph, it is clearly visible that Bangladesh won 3 matches i.e., third, fourth and fifth match.

S46. Ans.(b)
Sol.

Required % = $\frac{800+1000}{1200} \times 100 = 150\%$

S47. Ans.(d)
Sol.

Average of units sold of Bourbon, Oreo & Jim Jam by store in 2017 = $\frac{1200+1800+900}{3} = 1300$

Required difference = $1500 - 1300 = 200$

S48. Ans.(a)
Sol.

Units of Oreo sold by store in 2019 = $\frac{130}{100} \times 1800 = 2340$

Units of Jim Jam sold by store in 2019 = $\frac{140}{100} \times 1000 = 1400$

Required units = $2340 + 1400 = 3740$ units

S49. Ans.(b)
Sol.

Dark Fantasy & Hide & Seek together sold by store in 2017 = $400 + 1000 = 1400$

Oreo & Hide & Seek together sold by store in 2018 = $2000 + 1500 = 3500$

Required % = $\frac{3500-1400}{3500} \times 100 = 60\%$

S50. Ans.(d)
Sol.

Required revenue = $\left(30 \times (400 + 800)\right) = $ Rs.36000

S51. Ans.(b)
Sol.

$? = 2 + \frac{1}{3} + 5 + \frac{2}{3} - 3 - \frac{3}{4} + 8 + \frac{3}{4}$

$? = 13$

S52. Ans.(b)
Sol.

$\frac{32 \times 729}{81 \times 16} + 7 = (?)^2$

$(?)^2 = 18 + 7 = 25$

$? = 5$

S53. Ans.(c)

Sol.

$$9097 \times \frac{1}{11} \times \frac{1}{10} = ? + 15.7$$

? = 82.7 – 15.7

? = 67

S54. Ans.(d)

Sol.

180 – 110 = –255 + ?

? = 70 + 255

? = 325

S55. Ans.(d)

Sol.

175 + 133 + ? = 400

? = 92

S56. Ans.(d)

Sol.

$$? \times \frac{1}{9} \times 17 = 1156$$

? = 612

S57. Ans.(a)

Sol.

$$96 \times \frac{1}{168} \times 588 \times \frac{1}{12} = ?$$

? = 28

S58. Ans.(b)

Sol.

$$\frac{1}{9} \times 873 - 46 = ?$$

? = 97 – 46

? = 51

S59. Ans.(a)

Sol.

$$? = (2 + 4 - 3) + \left(\frac{4}{7} + \frac{1}{3} - \frac{2}{3} + \frac{16}{21}\right)$$

? = 3 + 1

? = 4

S60. Ans.(b)
Sol.

$(? \times 48) \times \frac{1}{54} = 32$

$? = 36$

S61. Ans.(b)
Sol.

$? = 7080$

S62. Ans.(c)
Sol.

$11 \times 303 + 1100 - 200 = ?$

$? = 4233$

S63. Ans.(d)
Sol.

$16 \times 9 \times 2 - 400 + 400 = ?$

$? = 288$

S64. Ans.(c)
Sol.

$4000 - 120 + 1120 = ?$

$? = 5000$

S65. Ans.(b)
Sol.

$5400 - 2175 + 175 = ?$

$? = 3400$

S66. Ans.(c)
Sol.

Let length of the train B = x meter

length of the train A = 2x meter

ATQ

$48 = \frac{2x + x}{(72 + 54) \times \frac{5}{18}}$

$48 = \frac{3x}{35}$

$x = 560 \, m$

So, length of train A = 2x = 1120 m

Now, let length of the platform be L meter.

$72 = \frac{L + 1120}{72 \times \frac{5}{18}}$

$L + 1120 = 1440$

$L = 320 \, meter$

S67. Ans.(c)

Sol.

Total score of Virat Kohli in 11 matches = $11 \times 85 = 935$
Total score in first four matches = $4 \times 72 = 288$
Total score in next six matches = $6 \times 90 = 540$
So, required runs = $935 - 288 - 540 = 107$

S68. Ans.(b)

Sol.

Let efficiency of a man is M.
Let time taken by 6 women is 'D' days.
ATQ,

$4M \times 80 \times 9 = 6 \times \frac{80}{100} \times M \times D \times 8$

$D = \dfrac{4 \times 80 \times 9 \times 100}{6 \times 80 \times 8}$

D = 75 days

S69. Ans.(d)

Sol.

Let radius of circle = r cm
ATQ,

$\pi r^2 = 38.5$

$r^2 = \dfrac{38.5}{22} \times 7$

$r^2 = 1.75 \times 7$

$r^2 = 12.25$

r = 3.5 cm

Required percentage = $\frac{3.5}{21} \times 100$

$= 16\frac{2}{3}\%$

S70. Ans.(a)

Sol.

Let two numbers are 4x and 5x respectively.
ATQ

$\frac{4x+40}{5x+40} = \frac{5}{6}$

$24x + 240 = 25x + 200$

$x = 40$

So, two numbers are 160 and 200 respectively.

Now, required ratio = $\frac{160-10}{200-10} = \frac{150}{190} = \frac{15}{19}$

S71. Ans.(a)
Sol.

volume of slab = volume of cube
Let side of cube be a cm.
So, $24 \times 18 \times 4 = a^3$
$a = \sqrt[3]{1728} = 12\ cm$

S72. Ans.(b)
Sol.

Let syrup, water and spirit in final mixture are 12x, 13x and 10x litre respectively.
Quantity of initial mixture containing water and spirit $= 40 \times \frac{3}{2} = 60\ litre$
ATQ,
$10x = 60 \times \frac{50}{100} \times \frac{2}{3}$
10x = 20 liter
x = 2 liter
So, (12x + 13x) = 25x = 50 liter.

S73. Ans.(d)
Sol.

Let sum invested at 10% per annum = Rs. x
And sum invested at 5% per annum = Rs. (15332 −x)
ATQ,
$\frac{x \times 2 \times 10}{100} + \frac{(15332 - x) \times 5 \times 2}{100} = 2334.8$
20x + 153320 − 10x = 233480
10x = 80160
x = Rs 8016

S74. Ans.(b)
Sol.

Ratio of profit share between A and B
$= 1000 \times 12 : [(1600 \times 4) + (800 \times 4) + (1200 \times 4)]$
$\Rightarrow 12000 : (6400 + 3200 + 4800)$
= 12000 : 14400
= 5 : 6
Profit share of A $= \frac{3509}{(5+6)} \times 5 = $ Rs. 1595

S75. Ans.(c)
Sol.

Let discount given or profit earned is Rs x.
So, cost price and marked price be Rs (500 − x) and Rs (500 + x) respectively.
ATQ
$\frac{500+x-500+x}{500-x} \times 100 = 50$
$\frac{2x}{500-x} = \frac{50}{100}$
$4x = 500 - x$
$x = 100$
So, cost price = 500 − 100 = Rs 400

S76. Ans.(e)
Sol.

S77. Ans.(a)
Sol.

$5 \times 2 = 10$
$10 \times 3 = 30$
$30 \times 5 = 150$
$? = 150 \times 7 = 1050$
$1050 \times 11 = 11550$

S78. Ans.(c)
Sol.

$5 + 6 \times 1 = 11$
$11 + 6 \times 2 = 23$
$23 + 6 \times 3 = 41$
$41 + 6 \times 4 = 65$
$65 + 6 \times 5 = 95$

S79. Ans.(d)
Sol.

$4 + 1 = 5$
$4^2 + 1 = 17$
$4^3 + 1 = 65$
$4^4 + 1 = 257$
$4^5 + 1 = 1025$
$? = 4^6 + 1 = 4097$

Alternate

$5 \times 4 - 3 = 17$
$17 \times 4 - 3 = 65$
$65 \times 4 - 3 = 257$
$257 \times 4 - 3 = 1025$
$1025 \times 4 - 3 = 4097$

S80. Ans.(a)
Sol.