

REGIONAL RURAL BANKS (RRBs)-2020

PREVIOUS YEAR PAPER

OFFICER SCALE-I

Sr. No.	Name of Tests (Objective)	No. of Questions	Medium of Exam	Maximum Marks	Duration
1.	Reasoning Ability	40	Hindi/English	40	Composite time of 45 minutes
2.	Quantitative Aptitude	40	Hindi/English	40	
	Total	80		80	

INSTRUCTIONS

- (1) Time limit to complete this test is 45 minutes no sectional timing.
- (2) It is not necessary for the candidate to attempt the section in order of their arrangement in this test. You can choose to attempt any section first, as per your preference. All questions are compulsory and carry equal marks.
- (3) Do not use calculators, or any electronic medium for calculations. You may take a clean sheet of paper for rough work and all calculations must be performed manually by the candidate.
- (4) There will be penalty for wrong answer marked by you in the objective tests. There are five alternatives in every question of a test.
- (5) For each question for which a wrong answer has been given by you, 1/4 or 0.25 of the marks assigned to that question will be deducted as penalty. If a question is left blank, i.e. no answer is given by you, there will be no penalty for that question.
- (6) There will be a cut off for each section and an overall cut off as well. Hence, your aim should be to answer maximum number of attempts in all three sections.

TEST-I: REASONING ABILITY

Direction (Qs.1 to 3): Study the following information carefully and answer the given questions

Harish starts walking towards north from point A and walks 7 m to reach point B. He turns 90° in clockwise direction and walks 14 m to reach point C. He then turns 90° in anti clockwise direction and walks 5 m to reach point D. One more time, he turns 90° in anti clockwise direction and walks 16 m to reach point E. He then turns 135° in anticlockwise direction and walks for a certain distance 'X' and finally stops at point B. Point F lies exactly North of point B on the line DE.

1. What is the value of 'X'?
(1) $\sqrt{30}$ m (2) $\sqrt{28}$ m (3) $\sqrt{29}$ m (4) 5 m (5) None of these
2. What is the direction of point F with respect to point C?
(1) North-East (2) North-West (3) South-East (4) South-West (5) Can't say
3. 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) EB (2) FC (3) DB (4) CA (5) FB

Direction (Qs.4 to 8): Study the following information carefully and answer the given questions

Seven boxes namely - P, Q, R, S, T, U and V are kept one above other in the form of stack. Weight (kg) of each box is different viz. 8, 9, 12, 16, 18, 21 and 23 kg. Each box also contains different articles viz., Bat, Ball, Cap, Cup, Book, Mobile and Pen. All the information are not necessary in same order.

At least three boxes are kept below the box S, whose weight is neither odd number nor contains Cup. The box which contains Ball is kept just above the box S and is kept three boxes away from the box whose weight is 9 kg. Box Q contains Bat and is kept just above the box whose weight is 9 kg. The box which contains Book is kept just below the box whose weight is 18 kg. The box P neither contains Ball nor kept at bottom. At least two boxes are kept between the box whose weight is 23 kg and the box which contains Pen. Number of boxes between P and the box which contains cup is one more than number of boxes between the box T and the box which contains Book. Weight of the box P is 21 kg and is kept just below the box whose weight is 8 kg. Weight of the box T is 12 kg. The box which contains Pen is kept just below the box U. The box V neither contains Ball nor kept adjacent to the box which contains Cap. Number of Boxes above U is as same as the number of boxes below T.

4. Which of the following boxes is kept just above the box V?
(1) Q (2) T (3) P (4) R (5) None of these
5. What is the weight difference between the box which contains mobile and the box kept just above the box R?
(1) 11 kg (2) 13 kg (3) 9 kg (4) 6 kg (5) None of these
6. How many boxes are kept below the box which contains Book?
(1) Three (2) One (3) Two (4) More than three (5) None

7. Which of the following statements is true?
 (1) Three boxes are kept between the box which contains Pen and the box T
 (2) The box whose weight is 16kg is kept just below the box Q
 (3) Two boxes are kept between the box R and the box which contains Mobile
 (4) One box is kept between the box S and the box which contains Cap
 (5) All the above statements are not true
8. Which of the following boxes is kept just above the box which contains Mobile?
 (1) V (2) Q (3) R (4) U (5) None of these
9. How many such pairs of letters are there in the word 'PROJECTOR' each of which has as many letters between them in the word as in the English alphabet series both in forward and reverse Direction?
 (1) None (2) One (3) Two (4) Three (5) More than three

Direction (Qs.10 to 12): Study the following information carefully and answer the below questions.

Each of the six friends A, B, C, D, E and F has different age groups. Only three people are younger than B. Only two people are born between D and F, who is younger than D. Only two people born between B and C. D is the oldest. E is older than A. The one who is second highest age is 45 year. A's age is 25 year.

10. Which of the following could possibly be B's age?
 (1) 48 (2) 21 (3) 55 (4) 39 (5) None of these
11. Total age of B and E is 75 year then what is the age of F?
 (1) 32 (2) 27 (3) 35 (4) 39 (5) None of these
12. Who among the following is the second oldest person?
 (1) D (2) B (3) E (4) F (5) A

Direction (Qs.13 to 16): In the following question assuming the given statement to be true. Find which of the following conclusion(s) among given conclusions is/are definitely true then give your answer accordingly.

13. **Statements:** $P > Q > R \geq S, S \geq T > U = V > W$
Conclusion: I. $W < P$ II. $R \leq T$
 (1) None is true (2) Only II is true (3) Both I and II are true
 (4) Only I is true (5) Either I or II is true
14. **Statements:** $A < B \leq C = D, F > E > G \geq D$
Conclusion: I. $A < D$ II. $B \leq G$
 (1) None is true (2) Only II is true (3) Both I and II are true
 (4) Only I true (5) Either I or II is true
15. **Statements:** $M < N = O > P; Q > R = P; S = T > R$
Conclusions: I. $M > T$ II. $P < S$ III. $R = O$ IV. $R > M$
 (1) None is true (2) Only I and II are true (3) Only I is true
 (4) Only II is true (5) Only II and IV are true

16. **Statements:** $A > B < C > D$; $D \leq E \leq F$; $F > G$
Conclusions: I. $D < C$ II. $B = D$ III. $C > E$ IV. $B > D$
(1) None is true (2) Only I is true
(3) Only I and II are true (4) Only III and IV are true (5) All are true

Direction (Qs.17 to 21): Study the following information carefully and answer the questions accordingly.

In a certain coded language,

“Village Approval Province Project” is coded as “£FJ %ED %EF £EF”

“Visitors Travelers Summer” is coded as “%EU £FU %DH”

“Free Available Garden Pocket” is coded as “%DH £HO %DH %DH”

17. What is the code for ‘Rooftop Dampen’?
(1) £FR £DH (2) £FR %CH (3) £ER %DH (4) £FR %DH (5) None of these
18. What is the code for ‘Unhindered Bridge’?
(1) %DJ %EH (2) %DI %FH (3) %DJ %FH (4) %DJ £FH (5) None of these
19. What is the code for ‘Accommodates entry offer’?
(1) £CU £EH £HH (2) £DU £EH £HH (3) £DU £EH £GH
(4) £DU £FH £HH (5) None of these
20. Which of the following word represents the following ‘%DH £FJ %EH’?
(1) among during special (2) chemical organise volatile
(3) factual defend manual (4) view degree buildings (5) None of these
21. Which of the following word represents the following ‘£DS £GW’?
(1) Application send (2) commercial buildings (3) cybersecurity app
(4) manual survive (5) None of these

Direction (Qs.22 to 26): Study the following information carefully and answer the questions.

Eight persons T, V, D, F, N, K, X and B are living on a different floors of an eight storey building. The lowermost floor of the building is numbered one, the floor one above is numbered two and so on till the topmost floor is numbered eight. They all are like different flowers namely Aster, Carnation, Dahlia, Daisy, Freesia, Jasmine, Lily and Lotus.

The one who likes Lily lives on an one of the odd numbered floors but above the third floor. Only one person lives between X and the one who likes Lily. More than three persons living between X and the one who likes Lotus. The one who likes Lotus does not live on the lowermost floor. Only two persons are living between the one who likes Aster and B, who lives on one of the even numbered floors. B does not live below the one who likes Aster. V lives one of the floors below the one who likes Aster and does not like Daisy. The one who likes Carnation lives immediately above D. As many persons living above D is same as below F. F does not live on the topmost floor. Only two persons live between V and the one who likes Dahlia. N likes Jasmine and does not live on the even numbered floor. K lives one of the floors above the one who likes Daisy.

22. V likes which of the following flowers?
(1) Dahlia (2) Lotus (3) Freesia (4) Jasmine (5) Can't say

23. How many persons are living between D and the one who likes Daisy?
 (1) 1 (2) 2 (3) 3 (4) None (5) 4
24. Four of the following five are alike in a certain way and hence form a group. Which one of the following one does not belong to that group?
 (1) K (2) F (3) B (4) T (5) X
25. If K is related to Freesia and T is related to Jasmine in a certain way. In the same way F is related to which of the following?
 (1) Dahlia (2) Aster (3) Lotus (4) Lily (5) Carnation
26. Which of the following statements is true?
 (1) K likes Lily
 (2) B lives on one of the odd numbered floors
 (3) One person lives between B and the one who likes Dahlia
 (4) D lives one of the floors above the one who likes Jasmine
 (5) None is true

Direction (Qs.27 to 31): Study the following information carefully and answer the questions that follow.

Twelve friends are seated along the two rows, such that they are facing each other. They all like different colors. A, B, C, D, E and F are seated in row 1 and facing south K, L, M, N, O and P are seated in row 2 and facing north.

B likes black color and faces the one who likes grey. N is on the immediate right of P, who is facing B, N, A and D likes yellow, violet and pink respectively. F is to the immediate right of B. C, E, O and L are seated at the extreme ends of row and nobody is sitting to the right of C. O and L like orange and navy blue respectively. L sits nearby to the one who like red color. Only K is sitting between L and M and he is not facing D. M and F likes blue and green respectively. N is to the immediate left of O. The one who sits at the extreme left of row 1 likes brown and the one who sits at another end in same row like white color.

27. Who likes Red color?
 (1) M (2) N (3) O (4) P (5) K
28. Who is facing the one who likes Brown color?
 (1) O (2) D (3) E (4) P (5) M
29. If A is related to M in a certain way and B is related to N in the same way, then which of the following is related to C?
 (1) P (2) N (3) K (4) L (5) None of these
30. Which of the following pair sits at the extreme ends facing each other?
 (1) L, N (2) K, O (3) L, C (4) M, N (5) K, N
31. Who sits to the immediate left of A?
 (1) B (2) C (3) E (4) D (5) F

Direction (Qs.32 to 36): Study the following information carefully and answer the questions.

Eight persons A, B, C, D, E, F, G and H are sitting around the square table in such a way that four of them are sitting at the four corners of the table while remaining four persons are sitting at the middle of each of the four sides. The persons who sitting at the four corners faces the center of the table and the persons who sitting at the middle of the four sides faces opposite to the center of the table. Each of them likes a different fruit, viz., Orange, Apple, Mango, Banana, Guava, Lemon, Papaya and Watermelon.

F sits third to the left of the one who likes Apple. The one who likes Apple faces outward of the table. Only two persons sit between F and A. The one who likes Orange sits to the immediate right of A. The one who likes Guava sit second to the right of B, who is neither an immediate neighbour of A nor an immediate neighbour of F. B does not like Apple. Only one person sits between H and the one who likes Guava. E sits immediate left of the one who likes Banana. B does not like Banana. D likes Mango but he is not an immediate neighbour of H. The one who likes Watermelon is an immediate neighbour of D. The one who likes Lemon is the immediate neighbour of C.

32. Who among the following sits opposite to the one who likes Orange?
(1) The one who likes Papaya (2) The one who likes Watermelon
(3) A (4) D (5) None of these
33. Which of the following fruit does E likes?
(1) Orange (2) Lemon (3) Papaya (4) Watermelon (5) Guava
34. Who among the following sits exactly between A and G, when counting from right of A?
(1) H (2) B (3) G (4) E (5) None of these
35. Who among the following is an immediate neighbour of the one who likes Guava?
(1) E, D (2) G, D (3) C, A (4) G, B (5) None of these
36. What is the position of the one who likes Banana with respect to B?
(1) Second to the left (2) Second to the right (3) Third to the right
(4) Third to the left (5) None of these
37. In a certain code language, if the word GROUND is coded as HPRQ SX, then how is the word NOURISH coded in that language?
(1) MQRVDYA (2) OMXNNMO (3) MQRTFXA (4) OMVNMNO (5) MQVNMPR

Direction (Qs.38 to 40): Study the following information carefully and answer the questions.

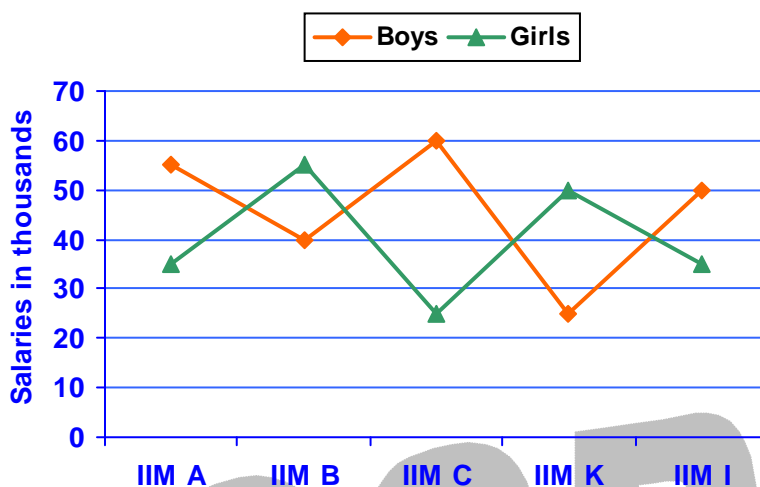
P is the father of R, who married to T. P is the grandfather of Q. U is the brother-in-law of R. S is the mother-in-law of T, who is the sister of U.

38. How is Q related to S?
(1) Either (2) or (3) (2) Grandson (3) Granddaughter (4) Mother (5) Daughter
39. How is S related to T?
(1) Daughter (2) Mother (3) Mother-in-law (4) Sister (5) None of these
40. How is R related to S?
(1) Son (2) Daughter (3) Sister (4) Brother (5) None of these

TEST-II: QUANTITATIVE APTITUDE

Direction (Qs.41 to 45): Study the following graph and answer accordingly.

Highest Salary per month for students across IIM



41. What would be the absolute difference between total salaries of Boys and Girls across all IIM?
 (1) 25000 (2) 32000 (3) 30000 (4) 39000 (5) 42000
42. What is the difference between the highest salary of the boy from IIM C and girl from IIM I?
 (1) 20,000 (2) 30,000 (3) 35,000 (4) 29,000 (5) 25,000
43. What would be the difference between average of highest salary of boys from IIM A, IIM B & IIM K and average salary of girls from IIM B, IIM K & IIM I?
 (1) 6500 (2) 6666 (3) 7200 (4) 6300 (5) 7466
44. What is the ratio of highest salaries of IIM A, IIM I and IIM K combined and IIM B and IIM C combined?
 (1) $\frac{25}{17}$ (2) $\frac{25}{18}$ (3) $\frac{23}{19}$ (4) $\frac{23}{18}$ (5) $\frac{24}{17}$
45. What is the difference between highest salary of boy from IIM C and girl from IIM C?
 (1) 25,500 (2) 27,000 (3) 25,000 (4) 32,000 (5) 35,000

Direction (Qs.46 to 50): In the following questions two equations numbered I and II are given. You have to solve both the equations and choose the correct option.

Give answer (1): If $x < y$

Give answer (2): If $x > y$

Give answer (3): If $x \leq y$

Give answer (4): If $x \geq y$

Give answer (5): If $x = y$ or relationship cannot be established

46. I. $15x^2 + x - 40 = 0$

II. $y^2 - 15y + 50 = 0$

47. I. $x^2 + 36x + 320 = 0$ II. $4y^2 - 28y + 45 = 0$
48. I. $x^2 + 3x - 10 = 0$ II. $y^2 - 26y + 105 = 0$
49. I. $x^2 + 2x - 288 = 0$ II. $y^2 - 27y + 180 = 0$
50. I. $x^2 - 30x + 209 = 0$ II. $y^2 + 6y - 72 = 0$

Directions (Qs.51 to 55): Study the following table carefully and answer the given questions.

Number of students enrolled in 4 different courses of a college during the given years

Years	2010		2011		2012	
	Total No. of Students	Total Female Students	Total No. of Students	Total Female Students	Total No. of Students	Total Female Students
A	840	478	820	552	800	434
B	1200	680	1220	660	1250	750
C	952	342	900	390	980	454
D	900	550	860	602	700	526

51. What was the average number of boys studying in all four courses of the college in the year 2011?
 (1) 399 (2) 419 (3) 499 (4) 439 (5) 459
52. What was the average number of female students studying in all four courses of the college in the year 2012?
 (1) 345 (2) 541 (3) 437 (4) 473 (5) 510
53. By what number is the number of boys studying in all four courses of the college in the year 2011 less than that of the girl students studying in all four courses in the same year?
 (1) 632 (2) 630 (3) 608 (4) 622 (5) 615
54. What is the % difference between the number of girls studying in all four courses in the year 2010 and that of boys studying in all four courses in the year 2010?
 (1) 6.48 (2) 6.83 (3) 8.20 (4) 5.34 (5) 8.42
55. What is the respective ratio between the total number of boys in courses B and D together in 2010 and that of all students in courses A and D in 2012?
 (1) 28 : 51 (2) 30 : 52 (3) 31 : 53 (4) 24 : 54 (5) 29 : 50

Directions (Qs.56 to 60): In each of the following number series only one number is wrong. Find out that wrong number.

56. 11 12 28 93 310 1965
 (1) 12 (2) 93 (3) 1965 (4) 310 (5) 28
57. 3 20 87 392 2025 12246
 (1) 12246 (2) 87 (3) 392 (4) 20 (5) 2025

58. 12 6.8 7.5 12.75 27.5 71.25
 (1) 27.5 (2) 7.5 (3) 12.75 (4) 71.25 (5) 6.8
59. 5 33 225 1345 6724 26881
 (1) 225 (2) 6724 (3) 26881 (4) 33 (5) 225
60. 225 256 289 344 361 400
 (1) 225 (2) 361 (3) 344 (4) 256 (5) 400

Direction (Qs.61 to 65): Study the following information carefully and answer the given questions.

The total gross national income of 3 different countries, India, Srilanka and Nepal in 3 different years are in the ratio of 18 : 15 : 16 respectively and the difference between the total gross national income of India and Srilanka is 12 billion dollars. The gross national income of Srilanka and Nepal in the year 2018 is 25 billion dollars each. The gross national income of India in the year 2018 is half of the total gross national income of Srilanka. The total gross national income of Nepal in the year 2016 is one-fourth of the total gross national income of Nepal. The gross national income of Srilanka in the year 2016 is 25% of total gross national income of Srilanka. The gross national income of India in the year 2016 is 2 billion dollar less than the gross national income of Srilanka in the year 2017.

61. Find the difference between the total gross national income all the given countries together in the year 2016 to that of 2018?
 (1) 22 billion dollars (2) 15 billion dollars (3) 38 billion dollars
 (4) 31 billion dollars (5) None of these
62. Find the ratio between the gross national income of India in the year 2017 and 2018 together to that of the gross national income of Nepal in the same year?
 (1) 9 : 8 (2) 7 : 5 (3) 11 : 7 (4) 13 : 9 (5) None of these
63. Total gross national income of all the given countries in the year 2017 is approximately what percentage more (or) less than the total gross national income of Srilanka in all the given years?
 (1) 20% more (2) 30% less (3) 12% more (4) 12% less (5) 30% more
64. Find the difference between the average gross national income of India in all the given years to that of total gross national income of Nepal in the year 2016 and 2017 together?
 (1) 15 billion dollars (2) 21 billion dollars (3) 25 billion dollars
 (4) 10 billion dollars (5) None of these
65. Total gross national income of Srilanka in the year 2017 and 2018 together is approximately what percentage of total gross national income of India and Nepal in the year 2016?
 (1) 88% (2) 74% (3) 115% (4) 132% (5) 150%

Direction (Qs.66 to 69): The following questions are accompanied by two statements. You have to determine which statement is/ are sufficient to answer the questions.

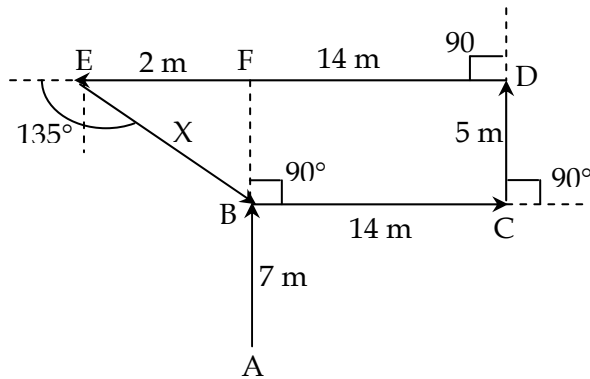
66. Find the initial investment of Q?
(I) P, Q and R entered into a partnership by investing in the ratio of 3 : 4 : 5. After 6 months, P invested Rs.5000 more.
(II) After 8 months from the starting of the business, R withdraws Rs.10000. The share of P, Q and R at the end of the year is in the ratio of 21 : 24 : 26.
(1) Statement I alone is sufficient
(2) Statement II alone is sufficient
(3) Neither Statement I alone nor Statement II alone is sufficient
(4) Both the Statements I and II are sufficient
(5) Either Statement I alone or Statement II alone is sufficient
67. How long will 15 women and 6 men take to do the work?
(I) 6 women and 8 men can do a work in 4 days.
(II) 9 women and 10 men can do the same work in 3 days.
(1) Statement II alone is sufficient
(2) Either Statement I alone or Statement II alone is sufficient
(3) Statement I alone is sufficient
(4) Both the Statement I and II are sufficient
(5) Neither Statement I alone nor Statement II alone is sufficient
68. Find the rate of interest per annum?
(I) An amount 4 times itself at simple interest in 12 years.
(II) The difference between the simple interest and compound interest on Rs.40000 for 2 years is Rs.2500.
(1) Either Statement I alone or Statement II alone is sufficient
(2) Neither Statement I alone nor Statement II alone is sufficient
(3) Statement I alone is sufficient
(4) Statement II alone is sufficient
(5) Both the Statement I and II are sufficient
69. Find the area of the rectangle?
(I) The area of the square is 784 Sq cm whose side is 4 times the radius of the circle. The perimeter of the rectangle is equal to the circumference of the circle.
(II) The breadth of the rectangle is 8 cm.
(1) Statement I alone is sufficient
(2) Statement II alone is sufficient
(3) Either Statement I alone or Statement II alone is sufficient
(4) Neither Statement I alone nor Statement II alone is sufficient
(5) Both the Statement I and II are sufficient
70. A, B and C started a business by investing in the ratio of 5 : 8 : 6. After 5 months, B withdraws Rs.10000 and after another 3 months, C invested Rs.15000 more. Find the initial investment of A, if the share of A, B and C at the end of the year is in the ratio of 30 : 41 : 42?
(1) Rs.30000 (2) Rs.35000 (3) Rs.20000 (4) Rs.25000 (5) None of these

71. The average salary of the whole employees in a company is Rs.350 per day. The average salary of officers is Rs.900 per day and that of clerks is Rs.300 per day. If the number of officers is 10, then find the total number of employees in the company?
 (1) 100 (2) 120 (3) 130 (4) 140 (5) None of these
72. There is a water tank of capacity 2400 liters. Two pipes P and Q connected with it, they can fill the tank in 120 hours and 100 hours respectively. The rate at which Q fills the tank is what percentage more (or) less than that of P?
 (1) 20% (2) 25% (3) 15% (4) 30% (5) None of these
73. C.I on a certain sum of money for 1 year at 8% per annum compounded half yearly is Rs.3264. Then find the principle amount?
 (1) Rs.45000 (2) Rs.36000 (3) Rs.40000 (4) Rs.30000 (5) None of these
74. The length of the rectangle is 16 m more than the breadth of the rectangle. The perimeter of the rectangle is 80 m. Find the radius of the circle, if the area of the rectangle is 28 sq m more than the two times of the area of circle?
 (1) 28 m (2) 21 m (3) 14 m (4) 7 m (5) None of these
75. The sum of length of two trains A and B is 660 m. The ratio of the speed of train A to that of train B is 4 : 5. The time taken by train A and train B to cross an electronic pole is in the ratio of 3 : 2. Find the difference between the lengths of train A to that of train B?
 (1) 60 m (2) 100 m (3) 80 m (4) 120 m (5) None of these
76. A box contains the coins of 20 p, 50 p and 1 rupee is in the ratio of 5 : 6 : 8. If there is Rs.24 in all, then find the total number of 50 p coins?
 (1) 10 (2) 24 (3) 12 (4) 18 (5) None of these
77. In how many ways can the letters of the word "CONVENIENT" be arranged in such a way that all the vowels come together?
 (1) 10080 (2) 20160 (3) 30240 (4) 5040 (5) None of these
78. 8 years hence, the age of P and 3 years ago, the age of Q is in the ratio of 4 : 3. The product of the present age of P and Q is 216 years. Find the present age of Q?
 (1) 20 years (2) 24 years (3) 18 years (4) 12 years (5) None of these
79. 30% of monthly income of P is equal to 50% of monthly income of Q. 15% of monthly income of Q is equal to 45% of monthly income of R. Find the total income of P, Q and R, if the monthly income of R is Rs.20000?
 (1) Rs.180000 (2) Rs.240000 (3) Rs.200000 (4) Rs.260000 (5) None of these
80. The speed of boat in still water is 18 kmph and speed of stream is 2 kmph. Boat travels total distance of 320 km upstream and downstream. It take 3 hour more to travel the same distance in upstream compare to downstream. Time taken to travel the upstream is _____ min.
 (1) 559.23 (2) 602.5 (3) 633.6 (4) 643.75 (5) 661.96

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ANSWERS

For (Qs.1 to 3):



1. **Ans (3):** $\sqrt{29}$ m
 $EB = \sqrt{(EF)^2 + (FB)^2} = \sqrt{5^2 + 2^2} = \sqrt{29}$ m
2. **Ans (2): North-West**
 F is in North-West direction with respect to C.
3. **Ans (5): FB**
 Only FB is in the North-South direction.

For (Qs.4 to 8):

Box	Weight	Article
U	8	Cap
P	21	Pen
R	18	Ball
S	16	Book
Q	23	Bat
V	9	Cup
T	12	Mobile

4. **Ans (1): Q**
 Box Q is just above box V.
5. **Ans (3): 9 kg**
 Difference between box has mobile and box above R = $21 - 12 = 9$ kg.
6. **Ans (1): Three**
 Three boxes are kept below box which contains book.
7. **Ans (5): All the above statements are not true**
 Given statements are not true about the information given.
8. **Ans (1): V**
 V is just above the box which has mobile.

9. **Ans (2): One**

P R O J E C T O

For (Qs.10 to 12): $D > E (45) > B > F > A (25) > C$

10. **Ans (4): 39**

B's age is less than 45 and more than 25. Therefore it may be 39.

11. **Ans (2): 27**

$B + E = 75 \Rightarrow B = 75 - 45 \Rightarrow B = 30$; Therefore F's age may be 27.

12. **Ans (3): E**

E is the second oldest person.

13. **Ans (4): Only I is true**

$P > Q > R \geq S \geq T > U = V > W$

Conclusion: I. $W < P$ (✓) II. $R \leq T$ (✗)

14. **Ans (3): Both I and II are true**

$A < B \leq C = D \leq G < E < F$

Conclusion: I. $A < D$ (✓) II. $B \leq G$ (✓)

15. **Ans (4): Only II is true**

$M < N = O > P = R < T = S$

↓

$R < Q$

Conclusions: I. $M > T$ (✗) II. $P < S$ (✓) III. $R = O$ (✗) IV. $R > M$ (✗)

16. **Ans (2): Only I is true**

$A > B < C > D \leq E \leq F > G$

Conclusions: I. $D < C$ (✓) II. $B = D$ (✗) III. $C > E$ (✗) IV. $B > D$ (✗)

Direction (Qs.17 to 21): Logic:

Symbol: According to number of letters in the word: if odd $\rightarrow \text{£}$, if even $\rightarrow \%$

Letter-I: According to number of letters in the word:

If number of letters odd, then number of vowels in the +3 in English alphabet.

If number of letters even, then number of vowels +2 in English alphabet.

Letter-II: Second last letter of the word changed to third next letter in English alphabet.

Eg. VILLAGE \Rightarrow £FJ

£ \Rightarrow Here, number of letters odd i.e.7, so symbol should be used £

F \Rightarrow No of letters odd, so number of vowels $(I + A + E = 3) + 3 = 6$ th position in alphabet \Rightarrow 'F'

J \Rightarrow Third next letter to second last letter of the word 'G' \Rightarrow J

1	2	3	4	5	6	7	8	9	10	11	12	13
A	B	C	D	E	F	G	H	I	J	K	L	M
Z	Y	X	W	V	U	T	S	R	Q	P	O	N
26	25	24	23	22	21	20	19	18	17	16	15	14

17. **Ans (4): £FR %DH**

The code for 'Rooftop Dampen' \Rightarrow £FR %DH

18. **Ans (3): %DJ %FH**

The code for 'Unhindered Bridge' ⇒ %DJ %FH

19. **Ans (2): £DU £EH £HH**

The code for 'Accommodates entry offer' ⇒ £DU £EH £HH

20. **Ans (4): view degree buildings**

The code '%DH £FJ %EH' represents ⇒ view degree buildings

21. **Ans (3): cybersecurity app**

The code '£DS £GW' represents ⇒ cybersecurity app

For (Qs.22 to 26):

Floor	Person	Flower
8	K	Lotus
7	N	Jasmine
6	B	Carnation
5	D	Lily
4	F	Dahlia
3	X	Aster
2	T	Daisy
1	V	Freesia

22. **Ans (3): Freesia**

V likes Freesia flower

23. **Ans (2): 2**

Two persons are living between D and the one who likes Daisy.

24. **Ans (5): X**

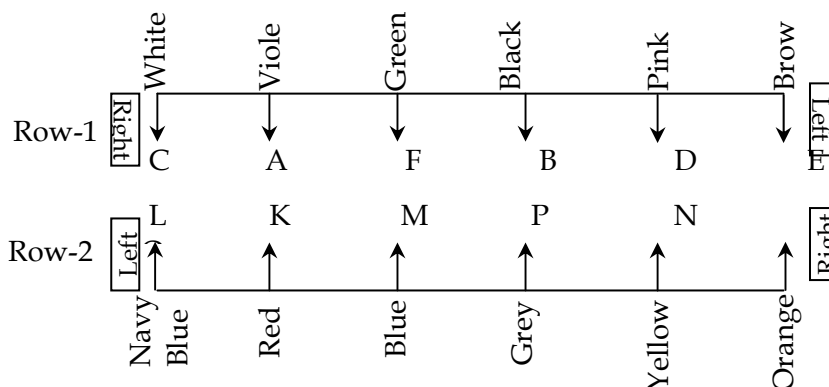
X lives on odd numbered floor.

25. **Ans (4): Lily**

F is related to Lily.

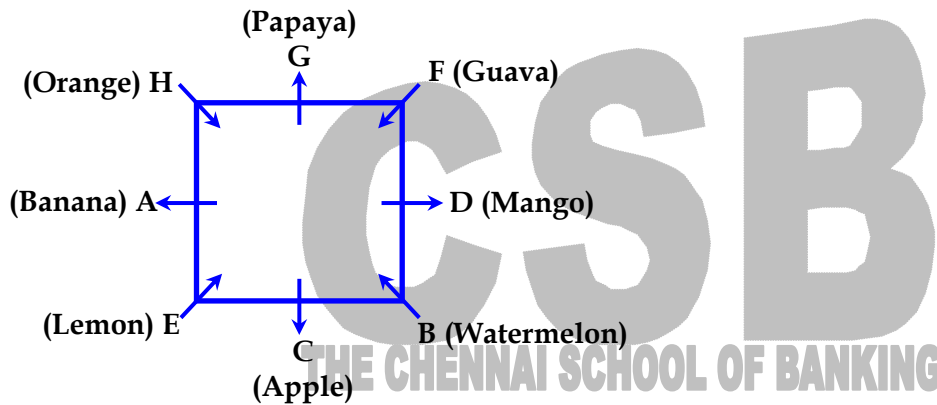
26. **Ans (3):** One person lives between B and the one who likes Dahlia

For (Qs.27 to 31):

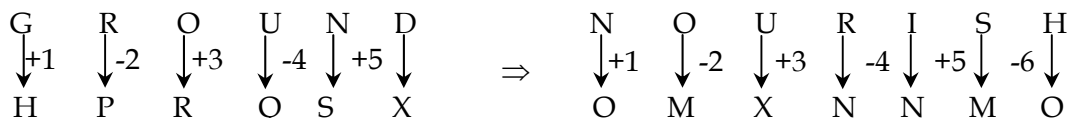


27. **Ans (5): K**
K likes Red Color.
28. **Ans (1): O**
O faces the one who likes Brown Color.
29. **Ans (3): K**
C is related to K.
30. **Ans (3): L, C**
L and C sits at the extreme ends facing each other.
31. **Ans (5): F**
F sits to the immediate left of A.

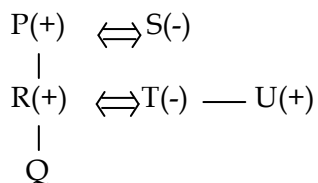
For (Qs.32 to 36):



32. **Ans (2):** The one who likes Watermelon
33. **Ans (2):** Lemon
34. **Ans (1):** H
35. **Ans (2):** G, D
36. **Ans (4):** Third to the left
37. **Ans (2):** OMXNNMO



For (Qs.38 to 40):



38. **Ans (1): Either (2) or (3)**

Q may be the grandson or granddaughter of S

39. **Ans (3): Mother-in-law**

S is the mother-in-law of T.

40. **Ans (1): Son**

R is the son of S.

41. **Ans (3): 30000**

Total salary for boys across all IIM = $55 + 40 + 60 + 25 + 50 = 230$ (in thousands) = 2,30,000

Total salary for girls across all IIM = $35 + 55 + 25 + 50 + 35 = 200$ (in thousands) = 2,00,000

Difference = $2,30,000 - 2,00,000 = 30,000$

42. **Ans (5): 25,000**

Salary of boy from IIM - C = 60,000

Salary of girl from IIM - I = 35,000

Required difference = $60,000 - 35,000 = 25,000$

43. **Ans (2): 6666**

Total salary of boys = $55 + 40 + 25 = 120$

Average salary = $\frac{120}{3} = 40$

Total salary of girls = $55 + 50 + 35 = 140$

Average salary = $\frac{140}{3} = 46.66$

\therefore Difference = $46.66 - 40 = 6.66$ (in thousands) = 6,666

44. **Ans (2): $\frac{25}{18}$**

Total salary of Boys from IIM A, IIM I and IIM K = $55 + 25 + 50 = 130$

Total salary of Girls from IIM A, IIM I and IIM K = $35 + 50 + 35 = 120$

Total salary of IIM A, IIM I and IIM K = $130 + 120 = 250$

Total salary of Boys from IIM B and IIM C = $40 + 60 = 100$

Total salary of Girls from IIM B and IIM C = $55 + 25 = 80$

Total salary of IIM B and IIM C = $100 + 80 = 180$

Ratio of highest salaries of IIM A, IIM I and IIM K combined and IIM B and IIM C

combined = $\frac{250}{180} = \frac{25}{18}$

45. **Ans (5): 35,000**

Difference between highest salary of boy from IIM C and girls from IIM C = $60,000 - 25,000 = 35,000$

46. **Ans (1): $x < y$**

I. SR = -1, PR = -600 $\Rightarrow x = \frac{24}{15}, \frac{-25}{15} \Rightarrow x = 1.6, -1.6$

II. SR = +15, PR = +50 $\Rightarrow y = 5, 10$

47. **Ans (1): $x < y$**

I. SR = -36, PR = 320 $\Rightarrow x = -16, -20$

II. SR = + 28, PR = 180 $\Rightarrow y = \frac{18}{4}, \frac{10}{4} = 4.5, 2.5$

48. **Ans (1): $x < y$**

I. SR = -3, PR = -10 $\Rightarrow x = -5, +2$

II. SR = +26, PR = 105 $\Rightarrow y = 21, 5$

49. **Ans (5): $x = y$ or relationship cannot be established**

I. SR = -2, PR = -288 $\Rightarrow x = -18, 16$

II. SR = 27, PR = 180 $\Rightarrow y = 15, 12$

50. **Ans (2): $x > y$**

I. SR = 30, PR = 209 $\Rightarrow x = 11, 19$

II. SR = -6, PR = -72 $\Rightarrow y = -12, 6$

51. **Ans (1): 399**

Boys studying in A = 820 - 552 = 268

Boys studying in B = 1220 - 660 = 560

Boys studying in C = 900 - 390 = 510

Boys studying in D = 860 - 602 = 258

\therefore Average number of boys studying in 2011 = $\frac{(268 + 560 + 510 + 258)}{4} = 399$

52. **Ans (2): 541**

\therefore Average number of girls studying in 2012 = $\frac{(434 + 750 + 454 + 526)}{4} = 541$

53. **Ans (3): 608**

Total number of students in 2011 = 820 + 1220 + 900 + 860 = 3800

Total number of girls studying in 2011 = 552 + 660 + 390 + 602 = 2204

Total number of boys in 2011 = 3800 - 2204 = 1596

\therefore Required difference = 2204 - 1596 = 608

54. **Ans (4): 5.34**

Total number of students in 2010 = 840 + 1200 + 952 + 900 = 3892

Total number of girls studying in 2010 = 478 + 680 + 342 + 550 = 2050

Total number of boys in 2010 = 3892 - 2050 = 1842

Percentage of girls = $\left(\frac{2050}{3892}\right) \times 100 = 52.67\%$

Percentage of boys = $\left(\frac{1842}{3892}\right) \times 100 = 47.33\%$

\therefore Percentage difference = 52.67 - 47.33 = 5.34%

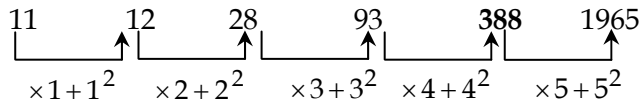
55. **Ans (5): 29 : 50**

Total number of boys in B and D in 2010 = 520 + 350 = 870

Total number of students in A and D in 2012 = 800 + 700 = 1500

\therefore Required ratio = $\frac{870}{1500} = \frac{29}{50} = 29 : 50$

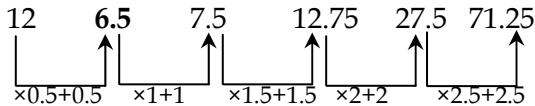
56. **Ans (4): 310**



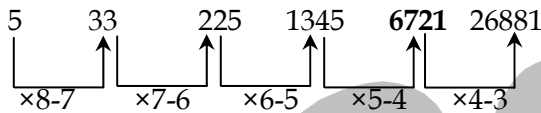
57. **Ans (1): 12246**



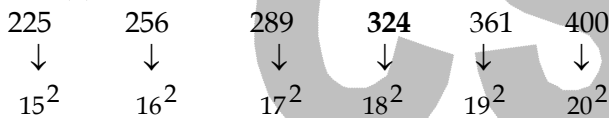
58. **Ans (5): 6.8**



59. **Ans (2): 6724**



60. **Ans (3): 344**



For (Qs.61 to 65):

Country	Total	2018	2017	2016
India	72	30	24	18
Srilanka	60	25	20	15
Nepal	64	25	23	16

61. **Ans (4): 31 billion dollars**

The total gross national income all the given countries together in the year 2016 = 18 + 15 + 16 = 49 billion dollars

The total gross national income all the given countries together in the year 2018 = 30 + 25 + 25 = 80 billion dollars

Required difference = 80 - 49 = 31 billion dollars

62. **Ans (1): 9 : 8**

The gross national income of India in the year 2017 and 2018 together = 24 + 30 = 54 billion dollars

The gross national income of Srilanka in the year 2017 and 2018 together = 23 + 25 = 48 billion dollars

Required ratio = 54 : 48 = 9 : 8

63. **Ans (3): 12% more**

Total gross national income of all the given countries in the year 2017 = 24 + 20 + 23 = 67 billion dollars

Total gross national income of Srilanka in all the given years = 15 + 20 + 25 = 60 billion dollars

$$\text{Required \%} = \left[\frac{(67 - 60)}{60} \right] \times 100 = 11.667\% = 12\% \text{ more}$$

64. **Ans (1): 15 billion dollars**

The average gross national income of India in all the given years = $\frac{72}{3} = 24$ billion dollars

Total gross national income of Nepal in the year 2016 and 2017 together = 16 + 23 = 39 billion dollars

Required difference = 39 - 24 = 15 billion dollars

65. **Ans (4): 132%**

The gross national income of Srilanka in the year 2017 and 2018 together = 20 + 25 = 45 billion dollars

The gross national income of India and Nepal in the year 2016 = 18 + 16 = 34 billion dollars

$$\text{Required percentage} = \left(\frac{45}{34} \right) \times 100 = 132\%$$

66. **Ans (4): Both the Statement I and II are sufficient**

Statement I and II together:

The share of P, Q and R,

$$[3x \times 6 + (3x + 5000) \times 6] : [4x \times 12] : [5x \times 8 + (5x - 10000) \times 4] = 21 : 24 : 26$$

$$[18x + 18x + 30000] : [48x] : [40x + 20x - 40000] = 21 : 24 : 26$$

$$[36x + 30000] : [48x] : [60x - 40000] = 21 : 24 : 26$$

$$\frac{(36x + 30000)}{48x} = \left(\frac{21}{24} \right) \Rightarrow 26x + 30000 = 42x \Rightarrow 6x = 30000 \Rightarrow x = 5000$$

The initial investment of Q = $4x = \text{Rs.}20000$

67. **Ans (4): Both the Statement I and II are sufficient**

Statement I and II together,

$$(6w + 8m) \times 4 = (9w + 10m) \times 3$$

$$24w + 32m = 27w + 30m \Rightarrow 2m = 3w$$

$$\Rightarrow 15w + 6m = 10m + 6m = 16m$$

$$6w + 8m = 4m + 8m = 12m$$

$$16m \times x = 12m \times 4 \Rightarrow x = 3 \text{ days}$$

68. **Ans (1): Either Statement I alone or Statement II alone is sufficient**

From Statement I: The principle be x ,

$$\text{Amount} = 4x; \text{S.I} = 4x - x = 3x$$

$$\text{S.I} = \frac{\text{Pnr}}{100}$$

$$3x = \frac{(x \times 12 \times r)}{100} \Rightarrow r = \frac{300}{12} = 25\%$$

From Statement II:

The difference between the simple interest and compound interest for 2 years = $\frac{Pr^2}{100^2}$

$$2500 = \frac{40000 \times r^2}{100 \times 100} \Rightarrow r^2 = \frac{2500}{4} \Rightarrow r = \frac{50}{2} = 25\%$$

69. Ans (5): Both the Statement I and II are sufficient

Statement I: The area of the square = 784 Sq cm

Side (a) = 28 cm = 4 × Radius

Radius of the circle = 7 cm

Circumference of the circle = $2 \times \left(\frac{22}{7}\right) \times 7 = 44$ cm

Perimeter of the rectangle = 44 cm

From Statement I and II together:

$44 = 2 \times (l + b) \Rightarrow 22 = l + 8 = 14$ cm

The area of the rectangle = $lb = 14 \times 8 = 112$ Sq cm

70. Ans (4): Rs.25000

The share of A, B and C,

$(5x \times 12) : (8x \times 5 + (8x - 10000) \times 7) : (6x \times 8 + (6x + 15000) \times 4) = 30 : 41 : 42$

$60x : (40x + 56x - 70000) : (48x + 24x + 60000) = 30 : 41 : 42$

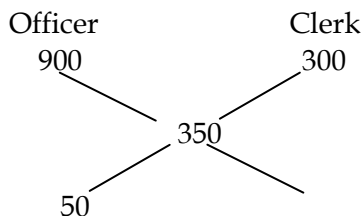
$\Rightarrow 60x : (96x - 70000) : (72x + 60000) = 30 : 41 : 42$

$$\therefore \frac{60x}{(72x + 60000)} = \left(\frac{30}{42}\right) \Rightarrow 72x + 60000 = 84x$$

$12x = 60000 \Rightarrow x = 5000$

The initial investment of A = $5x = \text{Rs.}25000$

71. Ans (2): 120



\therefore Ratio of officer : Clerk = 1 : 11

\therefore Total number of employees = $\frac{12}{1} \times 10 = 120$

72. Ans (1): 20%

Time taken P : Q = 120 : 100

Efficiency P : Q = 100 : 120

Required Percentage = $\frac{20}{100} \times 100 = 20\%$

73. **Ans (3): Rs.40000**

$$\text{Rate of Interest for half year} = \frac{8}{2} = 4\%$$

Amount invested = 100%

$$\text{Compound Interest} = 4 + 4 + \frac{4 \times 4}{100} = 8.16\%$$

$$\therefore \text{Total amount} = \frac{100}{8.16} \times 3264 = \text{Rs.40,000}$$

74. **Ans (4): 7 m**

$$l = b + 16$$

$$l - b = 16 \quad \dots (1)$$

The perimeter of the rectangle

$$2 \times (l + b) = 80 \text{ m}$$

$$l + b = 40 \quad \dots (2)$$

By solving the equation (1) and (2),

$$l = 28 \text{ m, } b = 12 \text{ m}$$

The area of the rectangle = 28×12 sq m

Given that, $2 \times \text{Area of Circle} = 28 \times 12 - 28$

$$\therefore 2 \times \frac{22}{7} \times r^2 = 28 \times 11 \Rightarrow r^2 = 7 \times 7 \Rightarrow r = 7 \text{ m}$$

75. **Ans (1): 60 m**

Length = Speed \times Time

$$\text{Train A} : \text{Train B} = 4 \times 3 : 5 \times 2 = 6 : 5$$

$$\therefore \text{Difference between length of train A to B} = \frac{1}{11} \times 660 = 60 \text{ m}$$

76. **Ans (3): 12**

Coins value = 20p : 50p : 1Re

Number of coins = 5 : 6 : 8

Total Rupee ratio = 1 : 3 : 8

$$\therefore 50\text{p number of coins} = 2 \times \frac{3}{12} \times 24 = 12 \text{ coins}$$

77. **Ans (1): 10080**

Combination is, CNVNNT (OEIE), all the vowels can be taken as one letter.

The total letters = 7

$$\text{Required number of ways} = \left(\frac{7!}{3!}\right) \times \left(\frac{4!}{2!}\right) = 840 \times 12 = 10080$$

78. **Ans (3): 18 years**

8 years the age of P and 3 years ago, the age of Q is in the ratio = 4 : 3 ($4x, 3x$)

The present age of P and Q = $4x - 8, 3x + 3$

$$\therefore (4x - 8) \times (3x + 3) = 216 \Rightarrow 12x^2 + 12x - 24x - 24 = 216$$

$$12x^2 - 12x - 240 = 0 \Rightarrow x^2 - x - 20 = 0$$

$$SR = 1, PR = -20 \Rightarrow x = 5, -4$$

$x = 5$ (Negative value will be eliminated)

The present age of Q = $3x + 3 = 18$ years

79. **Ans (1): Rs.180000**

$$30\% \text{ of } P = 50\% \text{ of } Q \Rightarrow 3P = 5Q = P : Q = 5 : 3$$

$$15\% \text{ of } Q = 45\% \text{ of } R \Rightarrow 1Q = 3R = Q : R = 3 : 1$$

$$\therefore P : Q : R = 5 : 3 : 1$$

$$\therefore \text{Total income} = 9 \times 20,000 = \text{Rs.1,80,000}$$

80. **Ans (3): 633.6**

Time taken to travel downstream as x hr

$$\text{Speed of boat in upstream} = \text{Speed of boat} - \text{speed of stream} = 18 - 2 = 16 \text{ kmph}$$

$$\text{Speed of boat in downstream} = \text{speed of boat} + \text{speed of stream} = 18 + 2 = 20 \text{ kmph}$$

$$\text{Time for upstream} = (x + 3) \text{ hr}$$

$$\text{Distance} = \text{Speed} \times \text{Time}$$

$$\text{Distance in upstream} + \text{Distance in downstream} = 320$$

$$16 \times (x + 3) + 20 \times x = 320 \Rightarrow 16x + 48 + 20x = 320$$

$$36x = 320 - 48 \Rightarrow 36x = 272 \Rightarrow x = 7.56 \text{ hr}$$

$$\text{Time taken for upstream} = x + 3 = 7.56 + 3 = 10.56 \text{ hr}$$

$$\therefore \text{Upstream time in min} = 10.56 \times 60 = 633.6 \text{ min}$$

