REGIONAL RURAL BANKS (RRBs)

OFFICE ASSISTANT EXAM 2017

Based on Memory

PRELIMINARY EXAMINATION (OBJECTIVE)*

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

*Candidates have to qualify in both the tests by securing minimum cut-off marks. Adequate number of candidates in each category, depending upon requirements, will be shortlisted for Online Main Examination.

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.

REASONING

Directions (Qs.1-5): In each of the question, relationships between some elements are shown in the statement(s). These statements are followed by conclusions numbered I and II. Read the statements and __

Give answer (1): If **only** conclusion I follows
Give answer (2): If **only** conclusion II follows
Give answer (3): If **either** conclusion I **or** II follows
Give answer (4): If **neither** conclusion I **nor** II follows
Give answer (5): If **both** conclusions I **and** II follow

1. **Statements:** A < B > N = M, B ≤ V, M > R
Conclusions: I. B > R II. V > A

2. **Statement:** D < E > F = G > H = I ≤ J
Conclusions: I. F > I II. J ≥ E

3. **Statements:** M < N < O > P, N < E
Conclusions: I. E < M II. E > O

4. **Statements:** C ≥ D < E = F ≥ G, C < W
Conclusions: I. E = G II. G < E

5. **Statements:** R < T < S < P > Q, R > X
Conclusions: I. S < Q II. X < S

Directions (Qs.6-10): Study the following information carefully and answer the question given below.

Eight people viz. G, H, I, J, K, L, M and N live in a Building on different floors from top to bottom (such as ground floor is numbered as 1 and top is numbered as 8) but not necessarily in the same order.

There is a gap of three floors between J and L and both of them live on odd number floor. N lives just above H, who lives on even numbered floor. I lives on floor number 6. Only one person lives between L and M. J lives above I. Three persons live between K and H.

6. Who among the following lives on ground floor?
(1) N (2) J (3) K (4) M (5) None of these

7. Who among the following lives immediately below L?
(1) K (2) I (3) G (4) H (5) None of these

8. How many persons live between I and H?
(1) One (2) Three (3) Five (4) Two (5) None of these

9. Who among the following lives on Top floor?
(1) N (2) J (3) K (4) M (5) None of these

10. Which of the following combinations is false?
(1) J – 7 (2) L – 3 (3) G – 2 (4) H – 4 (5) N – 1

11. In a row of children facing North, Rajan is twelfth from the right end and is fifth to the right of Satyarthi who is tenth from the left end. How many total number of children are there in the row?
(1) 29 (2) 28 (3) 26 (4) 27 (5) None of these

12. Raj leaves his home and goes straight 20 meters, then turns right and goes 10 meters. He turns left and goes 30 meters and finally turns right and starts walking. If he is now moving in the north direction, then in which direction did he start his walking?
(1) East (2) West (3) North (4) South (5) None of these

Directions (Qs.13-17): In each of the questions given below, a group of digits/letter is given followed by four combinations of symbols numbered (1), (2), (3) and (4). You have to find out which of the four combinations correctly represents the group of digits/letters based on the symbol codes and the conditions given below. If none of the four combinations represents the group of digits correctly, give (5) ie 'None of these' as the answer.

Digit	Z	L	F	1	I	5	7	A	E	B	2	X	6	W
Symbol	@	!	$	^	μ	Δ	Å	&	>	≠	<	®	£	∞

Condition for coding the group elements:
(i) If the first letter is Vowel and the last digit is divisible by 2, then both are to be coded as +
(ii) If the first as well as the last digit is odd, then both are to be coded by the code of the first digit.
(iii) If the first letter is consonant and the last digit is odd number, then the code of first and last elements are to be interchanged.

13. WX6ZF1
(1) ^ ® $ @ £ ∞ (2) ^ @ $ ∞ < ! (3) ^ ® £ @ $ ∞
(4) ∞ ® @ > ! < (5) None of these

14. FE1XI6
(1) ∞ ^ @ < ! £ (2) $ < ^ ^ £ @ (3) $ > ^ ® μ £
(4) $ < ^ @ ^ £ (5) None of these

15. 5L2IA1
(1) Δ ! < μ & Δ (2) Δ ! & ^ < μ (3) Δ ! < μ ^ &
(4) μ & Δ ! < ^ (5) None of these

16. E2ZA6
(1) & > ! ^ @ (2) @ < @ & ! (3) @ & < @ &
(4) + < @ & + (5) None of these

17. IZ2W2
(1) @ ≠ ^ $ & (2) + @ < ∞ + (3) < ∞ μ @ ≠
(4) @ ≠ > ! ^ (5) None of these

Directions (Qs.18-22): Read the following information carefully and answer the questions given below.

A, B, C, D, E, F, G and H are eight members standing in a row (not necessarily in the same order) facing north. C and B have as many members between them as G and C have between them. D, who is 4th from the extreme left end, is 2nd to the left of E. G is 3rd place away from one of the extreme end. Neither B nor C sits at any extreme end. F sits immediate right of A.

18. How many persons sit between G and B?
(1) One (2) Three (3) Two (4) Four (5) None of these

19. Who among the following persons sit at extreme ends?
(1) A, G (2) B, C (3) F, H (4) H, A (5) None of these

20. Who sits second to the right of E?
(1) B (2) H (3) G (4) C (5) None of these

21. Who sits third to the left of G?
(1) A (2) None (3) F (4) E (5) B

22. Who sits immediate left of C?
(1) A (2) H (3) C (4) D (5) None of these

23. Find the odd one out?
(1) ACB (2) DFE (3) GIH (4) JLK (5) MNO

Directions (Qs.24-28): Study the following number sequence and answer the questions following it.

9 3 2 4 5 7 9 5 8 1 5 0 6 4 2 9 8 2 6 3 5 9 8 2 1 5 4 3 2 1

24. How many odd numbers are there in the numeric series which are immediately preceded by a number, which is a whole square?
(1) One (2) Two (3) Three
(4) More than three (5) None of these

25. If all the odd numbers are dropped from the series, which number will be eighth to the left of eleventh number from the left end?
(1) 2 (2) 8 (3) 6 (4) 4 (5) None of these

26. If 1 is subtracted from all odd numbers and 2 is subtracted from all even numbers in the given number series, then which number will be sixteenth from the right end?
(1) 0 (2) 2 (3) 3 (4) 8 (5) 6

27. If the position of the 1st and the 16th numbers, the 2nd and the 17th numbers, and so on up to the 15th and the 30th numbers, are interchanged, which number will be 7th to the right of 19th number from the right end?
(1) 5 (2) 9 (3) 8 (4) 4 (5) None of these

28. How many total even numbers which is immediately preceded by a 'whole cube' or 'immediately preceded by a whole square' in the above sequence?
(1) Four (2) Five (3) Three (4) Six (5) None of these

29. How many pairs of letters are there in the word "WORSHIP" which have as many letters between them in the word as in alphabetical series?
(1) None (2) One (3) Two (4) Three (5) Four

Directions (Qs.30-34): In each question below are given some statements followed by two conclusions numbered I and II. You have to take the given statements to be true even if they seem to be at variance with commonly known facts. Read all the conclusions and then decide which of the given conclusions logically follows/follow from the given statements, disregarding commonly known facts.

Give answer (1): If **only** conclusion I follows
Give answer (2): If **only** conclusion II follows
Give answer (3): If **either** conclusion I **or** II follows
Give answer (4): If **neither** conclusion I **nor** II follows
Give answer (5): If **both** conclusions I **and** II follow

30. Statements: All shirts are skirts
No Skirt is top
All tops are kurta

Conclusions: I. All shirts are kurta
II. Some kurta are skirts

31. Statements: Some chocolate are chips
Some chips are jelly
All jelly are whoppers

Conclusions: I. Some jelly are chips
II. All chocolate being whoppers is a possibility

32. Statements: Some frooti are Maaza
No Maaza is slice
All slice are fanta

Conclusions: I. Some frooti are definitely not slice
II. Some fanta are definitely not Maaza

33. Statements: All carbon are oxygen
All Nitrogen are carbon
Some oxygen are Sulphur

Conclusions: I. All Nitrogen being Sulphur is a possibility
II. All Nitrogen are not oxygen

34. Statements: All September are October
No October is November
No November is December

Conclusions: I. Some September are not Novembers
II. No October is December

Directions (Qs.35-39): Following questions are based on the five words given below, Study the following words and answer the following questions.

NOW SAD WAF RAT CAT
(The new words formed after performing the mentioned operations may not necessarily be a meaningful English word.)

35. If the given words are arranged in the order as they appear in a dictionary from left to right, which of the following will be the fourth from the left end?
(1) WAF (2) NOW (3) SAD (4) CAT (5) RAT

36. How many letters are there in the English alphabetical series between the second letter of the word which is second from the right end and the third letter of the word which is second from the left end?
(1) Two (2) Three (3) Four (4) Five (5) None of these

37. If the third alphabet in each of the words is changed to the previous alphabet in the English alphabetical order, how many words thus formed will be without any vowels?
(1) None (2) One (3) Two (4) Three (5) More than three

38. If the position of the first and the third alphabet of each of the words are interchanged, which of the following will form a meaningful word in the new arrangement?
(1) NOW (2) SAD (3) RAT (4) WAF (5) Both (1) and (3)

39. If in each of the given words, each of the consonants is changed to its previous letter and each vowel is changed to its next letter in the English alphabetical series, then how many words thus formed will at least one vowel appear?
(1) None (2) One (3) Two (4) Three (5) None of these

40. If in the number 9737132710, positions of the first and the second digits are interchanged, positions of the third and fourth digits are interchanged and so on till the positions of 9^{th} and 10^{th} digits are interchanged, then which digit will be 6th from the left end?
(1) 7 (2) 1 (3) 3 (4) 9 (5) None of these

NUMERICAL ABILITY

Directions (Qs.41-45): Table shows the mobile phones sold on different days by different sellers. Read the table carefully and answer the questions.

Days → / Mobile Phone seller	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
P	40	45	48	28	50	24	20
Q	90	92	27	12	16	98	26
R	80	36	30	13	28	62	47
S	60	46	12	64	52	34	76
T	48	18	58	69	70	10	15

41. Find the difference of mobile phones sold by P and R together on Monday to the mobile phones sold by S and T on Wednesday?
(1) 60 (2) 50 (3) 80
(4) 20 (5) None of these

42. Find the ratio of mobile phones sold by Q on Tuesday and Saturday together to the mobile phones sold by R on Thursday and Sunday together?
(1) 7 : 19 (2) 19 : 5 (3) 19 : 6
(4) 2 : 5 (5) None of these

43. Mobile phones sold by P and S together on Wednesday is what percent of mobile phones sold by T on Sunday?
(1) 400% (2) 200% (3) 100%
(4) 50% (5) None of these

44. Find the average of mobile phones sold by Q on Wednesday, T on Sunday and S on Monday?
(1) 24 (2) 36 (3) 30
(4) 28 (5) None of these

45. The mobiles sold by P on Thursday are of two types i.e. Windows phone and Android phone in ratio 3 : 4. Find the number of Windows phones sold by P on Thursday?
(1) 14 (2) 24 (3) 16
(4) 12 (5) None of these

46. The retail price of a water geyser is Rs.1265. If the manufacturer gains 10%, the wholesale dealer gains 15% and the retailer gains 25%, then the cost of the product is:
(1) Rs.800 (2) Rs.900 (3) Rs.700
(4) Rs.600 (5) None of these

47. A pipe can fill a cistern in 6 hrs. Due to a leak in its bottom, it is filled in 7 hrs. When the cistern is full, in how much time will it be emptied by the leak?
(1) 42 hrs (2) 40 hrs (3) 43 hrs
(4) 45 hrs (5) None of these

48. Ram travels a certain distance at 3 km/hr and reaches 15 minutes late. If he travels at 4 km/hr, he reaches 15 minutes earlier. The distance he has to travel is:
(1) 4.5 km (2) 6 km (3) 7.2 km
(4) 12 km (5) None of these

49. In a mixture of 45 litre, the ratio of milk and water is 3 : 2. How much water must be added to make the ratio 9 : 11?
(1) 10 litre (2) 15 litre (3) 17 litre
(4) 20 litre (5) None of these

50. A person can row with the stream at 8 km per hour and against the stream at 6 km an hour. The speed of the current is:
(1) 1 Km/hr (2) 2 Km/hr (3) 4 Km/hr
(4) 5 Km/hr (5) None of these

51. A father's age is three times the sum of the ages of his two children, but 20 years hence his age will be equal to the sum of their ages. Then, the father's age is:
(1) 30 years (2) 40 years (3) 35 years
(4) 45 years (5) None of these

52. A sum was put at simple interest at a certain rate for 3 years. Had it been put at 1% higher rate, it would have fetched Rs.5100 more. The sum is:
(1) Rs.170000 (2) Rs.150000 (3) Rs.125000
(4) Rs.120000 (5) None of these

53. From among 36 teachers in a school, one principal and one vice-principal are to be appointed. In how many ways can this be done?
(1) 1260 (2) 1250 (3) 1240
(4) 1800 (5) None of these

54. A card is drawn at random from a well-shuffled pack of 52 cards. What is the probability of getting a two of hearts or a two diamonds?
(1) $\frac{3}{26}$ (2) $\frac{2}{17}$ (3) $\frac{1}{26}$
(4) $\frac{4}{13}$ (5) None of these

55. A sum is invested for 3 years at compound interest at 5%, 10% and 20% respectively. In three years, if the sum amounts to Rs.16,632, then find the sum.
(1) Rs.11000 (2) Rs.12000 (3) Rs.13000
(4) Rs.14000 (5) None of these

Directions (Qs.56-65): What should come in place of question mark (?) in following simplification problems?

56. 45% of 600 + ?% of 480 = 390
(1) 20 (2) 25 (3) 30 (4) 40 (5) None of these

57. $4\frac{2}{3}+7\frac{1}{6}-5\frac{2}{9}=?$
(1) $6\frac{2}{3}$ (2) $6\frac{2}{9}$ (3) $6\frac{11}{18}$ (4) $6\frac{7}{18}$ (5) None of these

58. 65% of 240 + ?% of 150 = 210
(1) 45 (2) 46 (3) 32 (4) 36 (5) None of these

59. $\frac{2}{3}\text{of}1\frac{2}{5}\text{of}75\%\text{of}540=?$
(1) 378 (2) 756 (3) 252 (4) 332 (5) None of these

60. 555.05 + 55.50 + 5.55 + 5 + 0.55 = ?
(1) 621.65 (2) 655.75 (3) 634.85 (4) 647.35 (5) None of these

61. 1425 + 8560 + 1680 ÷ 200 = ?
(1) 58.325 (2) 9973.4 (3) 56.425 (4) 9939.4 (5) None of these

62. ?% of 800 = 293 – 22% of 750
(1) 14 (2) 18 (3) 12 (4) 16 (5) 20

63. $25.6\%\text{of}250+\sqrt{?}=119$
(1) 4225 (2) 3025 (3) 2025 (4) 5625 (5) None of these

64. $4\frac{5}{6}-5\frac{5}{9}=?-2\frac{1}{3}+\frac{11}{18}$
(1) $\frac{3}{4}$ (2) $2\frac{1}{18}$ (3) $1\frac{7}{9}$ (4) $1\frac{11}{18}$ (5) None of these

65. [30% of {(80% of 850) ÷ 34}] = ?
(1) 5 (2) 4 (3) 6 (4) 8 (5) 9

66. The sides of a triangle are in the ratio of $\frac{1}{2}:\frac{1}{3}:\frac{1}{4}$. If the perimeter is 52 cm, then the length of the smallest side is:
(1) 9 cm (2) 10 cm (3) 11 cm (4) 12 cm (5) None of these

67. If A' s salary is 25% higher than B's salary, then how much percent is B's salary lower than A's?
(1) 15% (2) 20% (3) 25% (4) $33\frac{1}{3}\%$ (5) None of these

68. Ravi sells an article at a gain of $12\frac{1}{2}\%$. If he had sold it at Rs.22.50 more, he would have gained 25%. The cost price of the article is:
(1) Rs.162 (2) Rs.140 (3) Rs.196 (4) Rs.180 (5) None of these

69. A certain job was assigned to a group of men to do it in 20 days. But 12 men did not turn up for the job and the remaining men did the job in 32 days. The original number of men in the group was:
(1) 32 (2) 34 (3) 36 (4) 40 (5) None of these

70. A vessel contains liquid P and Q in the ratio 5 : 3. If 16 litres of the mixture are removed and the same quantity of liquid Q is added, the ratio become 3 : 5. What quantity does the vessel hold?
(1) 35 litre (2) 45 litre (3) 40 litre (4) 50 litre (5) None of these

Directions (Qs.71-75): What should come in place of question mark (?) in following simplification problems?

71. $50\%\ \text{of}\ 250+\sqrt{?}=165$
(1) 1700 (2) 1600 (3) 1800 (4) 2000 (5) None of these

72. 140% of 56 + 56% of 140 = ?
(1) 78.4 (2) 158.6 (3) 156.6 (4) 87.4 (5) None of these

73. $1\frac{1}{4}+1\frac{5}{9}\times 1\frac{5}{8}\div 6\frac{1}{2}=?$
(1) 17 (2) 27 (3) 42 (4) 18 (5) None of these

74. 999.09 + 99.90 + 9.99 + 9 + 0.99 = ?
(1) 1118.97 (2) 1128.97 (3) 1218.97 (4) 1139.97 (5) None of these

75. 20% of [{(220% of 40) – 10}]% of 500 = ?
(1) 58 (2) 68 (3) 98 (4) 78 (5) None of these

Directions (Qs.76-80): What should come in place of question mark (?) in the following number series?

76. 5, 8, 12, 18, 27, ?
(1) 39 (2) 40 (3) 41 (4) 42 (5) 43

77. 2, 10, 30, 68, 130, ?
(1) 210 (2) 215 (3) 222 (4) 228 (5) 235

78. 142, 133, 115, 88, ?
(1) 50 (2) 53 (3) 55 (4) 51 (5) 52

79. 3, 8, 18, 38, 78, ?
(1) 158 (2) 154 (3) 150 (4) 162 (5) 166

80. 6, 3, 3, 6, 24, ?
(1) 184 (2) 186 (3) 188 (4) 190 (5) 192

ANSWERS

1. **Ans (5): both conclusions I and II follow**
   Statements: A < B > N = M > R; B ≤ V
   Conclusions: I. B > R (✓) II. V > A (✓)

2. **Ans (1): only conclusion I follows**
   Statements: D < E > F = G > H = I ≤ J
   Conclusions: I. F > I (✓) II. J ≥ E (×)

3. **Ans (4): neither conclusion I nor II follows**
   Statements: M < N < O > P; N < E
   Conclusions: I. E < M (×) II. E > O (×)

4. **Ans (3): either conclusion I or II follows**
   Statements: W > C ≥ D < E = F ≥ G
   Conclusions: I. E = G (× ✓) II. G < E (× ✓)

5. **Ans (2): only conclusion II follows**
   Statements: X < R < T < S < P > Q
   Conclusions: I. S < Q (×) II. X < S (✓)

For (Qs.6 to 10):

Floor	Person
8	K
7	J
6	I
5	N
4	H
3	L
2	G
1	M

6. **Ans (4): M**
   M lives on the ground floor

7. **Ans (3): G**
   G lives immediately below L

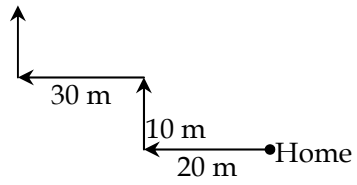
8. **Ans (1): One**
   Only one person, N lives between I and H

9. **Ans (3): K**
   K lives on the top floor

10. **Ans (5): N - 1**
    N lives on the floor number 5

11. **Ans (3): 26**
    Sathyarthi's position from left end = 10th
    Sathyarthi's position from right end = 17th
    Total number of children in the row = 10 + 17 – 1 = 26

12. **Ans (2): West**



Raj started walking towards west

13. **Ans (3): ^ ® £ @ $ ∞**
By using condition (iii)
The code of WX6ZF1 will be ^ ® £ @ $ ∞

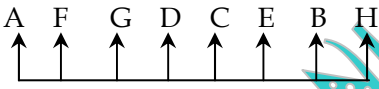
14. **Ans (3): $ > ^ ® µ £**
No condition follows
The code of FE1XI6 will be $>^®µ £

15. **Ans (1): Δ ! < µ & Δ**
By using condition (ii) ⇒ The code of 5L2IA1 Will be Δ ! < µ & Δ

16. **Ans (4): + < @ & +**
By using condition (i)
the code of E2ZA6 Will be + < @ & +

17. **Ans (2): + @ < ∞ +**
By using condition (i) the code of IZ2W2
Will be + @ < ∞ +

For (Qs.18 to 22):



18. **Ans (2): Three**
There are three persons D, C and E sit between G and B

19. **Ans (4): H, A**
A and H are at the extreme ends of the line

20. **Ans (2): H**
H sits second to the right of E

21. **Ans (2): None**
Only two persons sit to the left of G

22. **Ans (4): D**
D is to the immediate left of C

23. **Ans (5): MNO**
Except MNO, all other pairs follows the pattern of +2 → -1

24. **Ans (4): More than three**
Square/Odd number
Such combinations are 93, 45, 95, 43

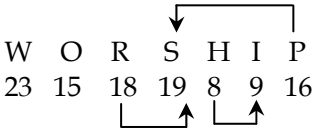
25. **Ans (2): 8**
Eighth to the left of 11th from left means 3rd from left i.e., 8

26. **Ans (1): 0**
Sixteenth from the right end is 2
∴Required number is 0

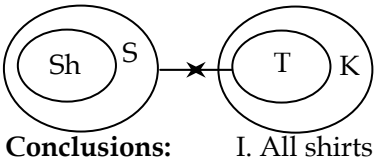
27. **Ans (4): 4**
7th to the right of 19th from the right end means 12th from the right end i.e., 4

28. **Ans (2): Five**
Cube or square/even number
Such combinations are 42, 98, 82, 98, 82

29. **Ans (4): Three**

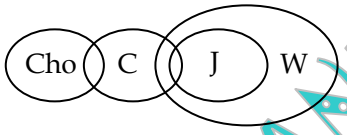


30. **Ans (4): neither conclusion I nor II follows**



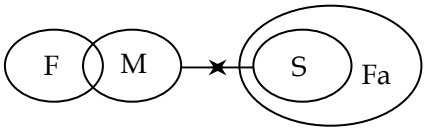
Conclusions: I. All shirts are kurta (×)
II. Some kurta are skirts (×)

31. **Ans (5): both conclusions I and II follow**



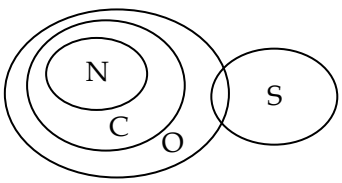
Conclusions: I. Some jelly are chips (✓)
II. All chocolate being whoppers is a possibility (✓)

32. **Ans (5): both conclusions I and II follow**



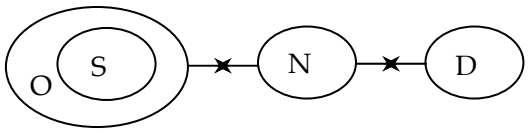
Conclusions: I. Some frooti are definitely not slice (✓)
II. Some fanta are definitely not Maaza (✓)

33. **Ans (1): only conclusion I follows**



Conclusions: I. All Nitrogen being Sulphur is a possibility (✓)
II. All Nitrogen are not oxygen (×)

34. **Ans (1): only conclusion I follows**



Conclusions: I. Some September are not Novembers (✓)
II. No October is December (×)

35. **Ans (3): SAD**
CAT NOW RAT **SAD** WAF

36. **Ans (1): Two**
Second word from the right end = R **A** T
Second word from the left end = S A **D**
∴ A **B C** D, two letters between A and D

37. **Ans (1): None**
NOV SAC WAE RAS CAS
All words have vowels

38. **Ans (5): Both (1) and (3)**
WON DAS FAW **TAR** TAC

39. **Ans (2): One**
MPV RBC **VBE** QBS BBS

40. **Ans (2): 1**
9 7 3 7 1 3 2 7 1 0
7 9 7 3 3 **1** 7 2 0 1

41. **Ans (2): 50**
Required difference = (40 + 80) – (12 + 58) = 120 – 70 = 50

42. **Ans (3): 19 : 6**
Required ratio $= \frac{92+98}{13+47} = \frac{190}{60} = 19:6$

43. **Ans (1): 400%**
Required percentage $= \frac{48+12}{15} \times 100 = \frac{60}{15} \times 100 = 400\%$

44. **Ans (5): None of these**
Average $= \frac{27+15+60}{3} = \frac{102}{3} = 34$

45. **Ans (4): 12**
Windows phones sold by P on Thursday $= \frac{3}{7} \times 28 = 12$

46. **Ans (1): Rs.800**
Cost price $= \frac{100}{110} \times \frac{100}{115} \times \frac{100}{125} \times 1265 = \text{Rs.}800$

47. Ans (1): 42 hrs

In one hour, $\frac{1}{6}$ of the cistern can be filled

In one hour, only $\frac{1}{7}$ of the cistern can be filled due to leak in its bottom

$\therefore$ In one hour $\frac{1}{6}-\frac{1}{7}=\frac{1}{42}$ of the cistern is empty

$\therefore$ The whole cistern will be emptied in 42 hrs

48. Ans (2): 6 km

Let D be the required distance

So, $\frac{D}{3}-\frac{D}{4}=\frac{15+15}{60}\Rightarrow D=6\,km$

49. Ans (2): 15 litre

Milk = $\frac{3}{2}\times 45=27$ litre

Water = $\frac{2}{5}\times 45=18$ litre

$\therefore \frac{27}{18+x}=\frac{9}{11}\Rightarrow 18+x=33\Rightarrow x=15$ litre

50. Ans (1): 1 Km/hr

Speed of the current = $\frac{1}{2}(8-6)=1$ kmph

51. Ans (1): 30 years

20 years hence, $\frac{3x+20}{x+20+20}=\frac{1}{1}\Rightarrow 2x=20=x=10$

$\therefore$Father's age = 3 × 10 = 30 years

52. Ans (1): Rs.170000

Simple interest for 1 year $=\frac{5100}{3}=$ Rs.1700

1% of sum = Rs.1700

$\therefore$ Sum $=\frac{1700\times 100}{1}=$ Rs.170000

53. Ans (1): 1260

One principal can be appointed in 36 ways

One vice-principal appointed in remaining 35 ways

$\therefore$ Total no. of ways = 36 × 35 = 1260

54. Ans (2): $\frac{2}{17}$

Required probability $=\frac{^{13}C_2+^{13}C_2}{^{52}C_2}=\frac{2\times 13\times 12}{52\times 51}=\frac{2}{17}$

55. Ans (2): Rs.12000

Sum = 100

Total Amount (in%) $\Rightarrow$ 1st year 5

105

2nd year = 10.5

115.5

3rd year = 23.1

138.6%

$\therefore \text{Sum} = \frac{100}{138.6} \times 16632 = \text{Rs.}12000$

56. Ans (2): 25

$\frac{45}{100}\text{of}\,600 + \frac{?}{100}\text{of}\,480 = 390 \Rightarrow 270 + 4.8 \times ? = 390$

$\therefore ? = \frac{390 - 270}{4.8} = 25$

57. Ans (3): $6\frac{11}{18}$

$? = (4 + 7 - 5) + \left(\frac{12 + 3 - 4}{18}\right) = 6\frac{11}{18}$

58. Ans (4): 36

$\frac{65}{100}\text{of}\,240 + \frac{?}{100}\text{of}\,150 = 210 \Rightarrow 156 + 1.5 \times ? = 210$

$\therefore ? = \frac{210 - 156}{1.5} = 36$

59. Ans (1): 378

$? = \frac{2}{3}\text{of}\frac{7}{5}\text{of}\frac{75}{100}\text{of}\,540 = 7 \times 54 = 378$

60. Ans (1): 621.65

? = 555.05 + 55.50 + 5.55 + 5 + 0.55 = 621.65

61. Ans (5): None of these

$? = 1425 + 8560 + 1680 \div 200 \Rightarrow 1425 + 8560 + \frac{1680}{200} = 9985 + 8.4 = 9993.4$

62. Ans (4): 16

$\frac{800 \times ?}{100} = 293 - \frac{750 \times 22}{100} \Rightarrow 8 \times ? = 293 - 165 = 128 \Rightarrow ? = \frac{128}{8} = 16$

63. Ans (2): 3025

$250 \times \frac{25.6}{100} + \sqrt{?} = 119 \Rightarrow 64 + \sqrt{?} = 119 \Rightarrow \sqrt{?} = 119 - 64 = 55 \Rightarrow ? = 55 \times 55 = 3025$

64. Ans (5): None of these

$4 + \frac{5}{6} - 5 - \frac{5}{9} = ? - 2 - \frac{1}{3} + \frac{11}{18} \Rightarrow ? = 4 - 5 + 2 + \left(\frac{5}{6} - \frac{5}{9} + \frac{1}{3} - \frac{11}{18}\right) \Rightarrow 1 + \left(\frac{15 - 10 + 6 - 11}{18}\right) = 1 + 0 = 1$

65. Ans (3): 6

$$?=\left[\frac{30}{100}\times\left\{\left(\frac{80}{100}\times 850\right)\div 34\right\}\right]=\left[\frac{30}{100}\times\{680\div 34\}\right]=\left[\frac{30}{100}\times 20\right]=6$$

66. Ans (4): 12 cm

Sides of a triangle are in ratio $\frac{1}{2}:\frac{1}{3}:\frac{1}{4}$, i.e., 6 : 4 : 3.

$\therefore$ Length of the smallest side = $\frac{3}{13}\times 52 = 12$ cm

67. Ans (2): 20%

Let A : B = 125 : 100

$\therefore$ Required percentage = $\frac{25}{125}\times 100 = 20\%$

68. Ans (4): Rs.180

Difference of S.P = Rs.22.50

$\therefore 12\frac{1}{2}$ % of C.P. = Rs.22.50 $\Rightarrow$ C.P. = Rs.180

69. Ans (1): 32

Suppose x = original number of men in the group

$\therefore (x - 12)$ men did the job in 32 days

$\therefore 20x = 32(x - 12)$

i.e. $x = 32$

70. Ans (3): 40 litre

Let, the quantity of liquid P and Q be $5x$ and $3x$ litre respectively,

Quantity of P removed = $\frac{5}{5+3}\times 16 = 10$ litre

Quantity of Q removed = $\frac{3}{5+3}\times 16 = 6$ litre

Now, $\frac{5x-10}{3x-6+16}=\frac{3}{5}\Rightarrow 25x-50=9x+30\Rightarrow 16x=80\Rightarrow x=5$

$\therefore$ Quantity that vessel hold = 8 × 5 = 40 litre

71. Ans (2): 1600

$\frac{50}{100}$ of $250+\sqrt{?}=165\Rightarrow 125+\sqrt{?}=165\Rightarrow\sqrt{?}=40$

$\therefore ?=(40)^2=1600$

72. Ans (5): None of these

$\frac{140}{100}$ of $56+\frac{56}{100}$ of $140=?\Rightarrow ?=78.4+78.4=156.8$

73. Ans (5): None of these

$$?=1\frac{1}{4}+1\frac{5}{9}\times 1\frac{5}{8}\div 6\frac{1}{2}=\frac{5}{4}+\frac{14}{9}\times\frac{13}{8}\div\frac{13}{2}\Rightarrow ?=\frac{5}{4}+\frac{14}{9}\times\frac{13}{8}\times\frac{2}{13}\Rightarrow ?=\frac{5}{4}+\frac{7}{18}=\frac{45+14}{36}=\frac{59}{36}=1\frac{23}{36}$$

74. **Ans (1): 1118.97**

? = 999.09 + 99.90 + 9.99 + 9 + 0.99 = ? $\Rightarrow$? = 1118.97

75. **Ans (4): 78**

$? = \frac{20}{100} \times \left[\left\{\left(\frac{220}{100} \times 40\right) - 10\right\}\right] \%\ \text{of}\ 500 \Rightarrow ? = \frac{1}{5} \times (88 - 10)\%\ \text{of}\ 500 = ? \Rightarrow = \frac{1}{5} \times \frac{78}{100} \times 500 \Rightarrow ? = 78$

76. **Ans (2): 40**

5 8 12 18 27 **40**

+3 +4 +6 +9 +13

+1 +2 +3 +4

77. **Ans (3): 222**

2 10 30 68 130 **222**

+8 +20 +38 +62 +92

+12 +18 +24 +30

78. **Ans (5): 52**

142 133 115 88 **52**

-9 -18 -27 -36

79. **Ans (1): 158**

3 8 18 38 78 **158**

+5 +10 +20 +40 +80

80. **Ans (5): 192**

6 3 3 6 24 **192**

×0.5 ×1 ×2 ×4 ×8

"ALL THE BEST"

"PRACTICE MAKES PROGRESS...!