

IBPS RRB Clerk Pre 2025 Memory Based Paper Based on 13th December 1st Shift

Directions (1-5): Read the given instructions carefully and answer the related question:

Seven boxes J, K, L, M, N, O, P are placed one above the other in a stack, but not in same order as given.

Box K is placed three boxes above box P. Box L is placed immediately above box K. Number of boxes placed above box L is same as the number of boxes placed below box N. Three boxes are placed between box M and box O. Box M is not placed at second position from the bottom.

Q1. How many boxes are placed between box J and box K?

- (a) One
- (b) Two
- (c) Three
- (d) Four
- (e) None

Q2. Which box is placed immediately above box P?

- (a) Box L
- (b) Box M
- (c) Box N
- (d) Box J
- (e) Box O

Q3. If box M is interchanged with box K, then how many boxes are placed below box M?

- (a) None
- (b) Four
- (c) Three
- (d) Two
- (e) One

Q4. If all the boxes are arranged in alphabetical order from bottom to top, then how many boxes will remain same on their position?

- (a) Two
- (b) Three
- (c) One
- (d) None
- (e) Four

Q5. Which of the following statement is correct?

- (a) Box P is not placed at bottommost position
- (b) Three boxes are placed above box N
- (c) Box O is placed below box P
- (d) One box is placed between box J and box L
- (e) All are correct

Q6. If we form a four-letter meaningful word by using the first, third, sixth and eighth letter from the left end of the word 'FRAGMENT', then which of the following will be the second letter from left of the meaningful word thus formed. If more than one word is formed mark Z as your answer. If no meaningful word is formed, mark X as your answer?

- (a) F
- (b) T
- (c) E
- (d) Z
- (e) X

Directions (7-9): In this question, the relationship between different elements is shown in the statements. The statements are followed by two conclusions. Study the conclusions based on the given statements and select the appropriate answer:

- (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 both conclusions I and II are true
- (e) If neither conclusion I nor II is true

Q7. Statements: $M = T \leq K < P < Q < V$

Conclusions:

- I. $K > V$
- II. $M \leq Q$

Q8. Statements: $W \leq E < S < Y \leq N = A$

Conclusions:

- I. $N > E$
- II. $S \leq A$

Q9. Statements: $G = J \geq X < C < B < M$

Conclusions:

- I. $G > B$

II. $G \leq B$

Directions (10-12): Read the given instructions carefully and answer the related question:

From point P, Rohan walks 10 km towards the East to reach point Q, then takes a left turn and walks 14 km to reach point R. He then takes a right turn and walks 6 km to reach point S. After that, he takes another right turn and walks 11 km to reach point T. Finally, he takes a left turn and walks 9 km to reach point U.

Q10. In which direction is point T with respect to point Q?

- (a) North-east
- (b) North
- (c) South-west
- (d) South-east
- (e) West

Q11. What is the total distance covered by Rohan?

- (a) 35km
- (b) 48km
- (c) 50km
- (d) 24km
- (e) 40km

Q12. Which point is not in north-east of point Q?

- (a) Point S
- (b) Point P
- (c) None of these
- (d) Point T
- (e) Point U

Directions (13-17): Read the given instructions carefully and answer the related question:

Seven persons P, Q, R, S, T, U and V play a game on different days of a week starting from Monday to Sunday. The information of persons is not used in same manner as given.

Two persons play game before S. One person plays game between S and Q. R plays game three persons before P. T plays game before P but not on Thursday. V plays game on Sunday.

Q13. U plays game on which day?

- (a) Tuesday
- (b) Thursday
- (c) Saturday
- (d) Monday
- (e) Friday

Q14. If all the persons play game in alphabetical order from Monday to Sunday, then how many persons will remain same on their position?

- (a) Four
- (b) Three
- (c) One
- (d) Two
- (e) None

Q15. Which of the following statement is correct?

- I. T plays game on Tuesday
- II. One person lays game between R and S
- III. Q plays game after U
- (a) Only I
- (b) Only II
- (c) Only I and II
- (d) Only III
- (e) Only II and III

Q16. Who among the following plays game on Monday?

- (a) R
- (b) U
- (c) T
- (d) P
- (e) Q

Q17. If R is related to S, in the similar way P is related to U, then who among the following is related to Q?

- (a) T
- (b) S
- (c) R
- (d) P
- (e) U

Directions (18-20): Read the given instructions carefully and answer the related question:

Six persons J, K, L, M, N, P are of different weight but not in same order as given.

M is heavier than K but lighter than J. P is heavier than L but lighter than K. Weight of second heaviest person is 80kg. Only one person is heavier than N.

Q18. Who among the following is third lightest person?

- (a) P
- (b) L
- (c) M
- (d) J
- (e) K

Q19. If K's weight is 72 kg, then what could be the possible weight of M?

- (a) 84kg
- (b) 82kg
- (c) 70kg
- (d) 75kg
- (e) 71kg

Q20. How many persons are heavier than P?

- (a) Three
- (b) Four
- (c) Two
- (d) One
- (e) Five

Directions (21-25): **Study the following series carefully and answer the questions given below.**

O 7 % R K 3 @ E 9 T # S 5 \$ A P 1 ! U 8 ^ M Q 4 & N 6 Z

Q21. Which element is sixth to the right of the element which is fourth from the left end?

- (a) @
- (b) 9
- (c) T
- (d) E
- (e) #

Q22. How many vowels are immediately preceded by symbol and immediately followed by digit in the given series?

- (a) Three
- (b) Four
- (c) One
- (d) Two
- (e) None of these

Q23. If last five elements are dropped from the series, which element will be ninth from right end?

- (a) A
- (b) !
- (c) P
- (d) S
- (e) \$

Q24. Which element is sixth to the left of the fifth digit from the right end?

- (a) E
- (b) @
- (c) R
- (d) K
- (e) 7

Q25. How many letters in the series are immediately preceded by a digit and immediately followed by a digit?

- (a) One
- (b) Two
- (c) Three
- (d) Four
- (e) None

Directions (26-30): **Study the following information carefully and answer the questions given below.**

In a certain code language:

"Yellow box sparkle gloves" is coded as "ps rm fd er"

"Gloves shiny spectacles yellow" is coded as "fd gh st ps"

"Box shiny new spectacles" is coded as "gh st gi rm"

"Light new yellow box" is coded as "ps gi rm hn"

Q26. What is the code for "Gloves" in the given code language?

- (a) rm
- (b) fd
- (c) st
- (d) gi
- (e) Can't be determined

Q27. Which word is coded as "gi" in the given code language?

- (a) Yellow
- (b) Box
- (c) Light
- (d) Gloves
- (e) New

Q28. Which among the following is definitely correctly matched?

- (a) Yellow – fd
- (b) Gloves – st
- (c) Light – hn
- (d) Shiny – gh
- (e) New – er

Q29. If “shiny shoes” is coded as “jl gh” then what is the possible code for “black spectacles”?

- (a) gi er
- (b) gh si
- (c) st op
- (d) pa er
- (e) jl er

Q30. If the code for “White light” is “th hn” then what may be the code of “white flower”?

- (a) th er
- (b) bh th
- (c) th st
- (d) hn er
- (e) ps th

Q31. If the digits of the number “589421367” are arranged in ascending order from left to right, the position of how many digits remain unchanged?

- (a) Three
- (b) Four
- (c) One
- (d) Two
- (e) None of these

Directions (32-34): In each question below, some statements are given 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 from the given statements, disregarding commonly known facts.

- (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

Q32. Statements:

Only a few artists are creative
All painters are creative

Conclusions:

- I. Some artists are painters
- II. Some artists are not creative

Q33. Statements:

Only a few remote are devices.
Some devices are portable.

Conclusions:

- I. Some remote are portable
- II. No remote are portable

Q34. Statements:

All apples are mango
No apples is berry

Conclusions:

- I. Some mango are not berry
- II. All mango being berry is a possibility

Q35. In the word “IMAGINED” each vowel is changed to its immediately succeeding letter in the English alphabet and each consonant is changed to its immediately preceding letter. After the changes, how many vowels are there in the newly formed word?

- (a) None
- (b) One
- (c) Two
- (d) Three
- (e) Four

Directions (36-40): Read the given information carefully and answer the related questions.

Eight persons A, B, C, D, E, F, G and H sit around a square-shaped table in such a way that four persons sit at each corner facing outside and four persons sit at the middle of each side facing inside. B sits third to the right of E. Two persons sit between B and D. H sits immediate right of D. One person sits between H and C. C and D are not immediate neighbours. F sits three places away from C. One person sit between F and G. A faces outside.

Q36. Four of the following five are alike in a certain way and thus form a group.

Find the one which does not belong to the group.

- (a) B-H
- (b) A-F
- (c) D-G
- (d) E-F
- (e) A-C

Q37. Who sits fifth to the right of A?

- (a) G
- (b) B
- (c) D
- (d) H
- (e) E

Q38. How many persons sit between E and D when counted clockwise from D?

- (a) One
- (b) Two
- (c) Three
- (d) Four
- (e) Five

Q39. If H is related to C and in the same way F is related to G then who is related to D?

- (a) A
- (b) E
- (c) C
- (d) G
- (e) F

Q40. Who among the following persons are facing inside?

- I. B
- II. G
- III. D
- (a) Only I
- (b) Only II and III
- (c) Only III
- (d) Only I and II
- (e) All I, II and III

Direction (41-45): The table shows the number of workshops (science, economics, social science) attended by four students.

Read the table to answer the following questions.

Student	Science	Economic	Social science
A	136	188	100
B	134	122	105
C	150	120	132
D	125	80	120

Q41. Find the ratio of science workshops attended by A to Economics workshop attended by C.

- (a) 17:15
- (b) 12:17
- (c) 13:11
- (d) 14:13
- (e) 15:11

Q42. Find the average number of science workshops attended by A, B and C.

- (a) 110
- (b) 120
- (c) 130
- (d) 140
- (e) 150

Q43. Find the economics workshops attended by C and D together is what percentage more than the social science workshop attended by A.

- (a) 100
- (b) 120
- (c) 130
- (d) 140
- (e) 150

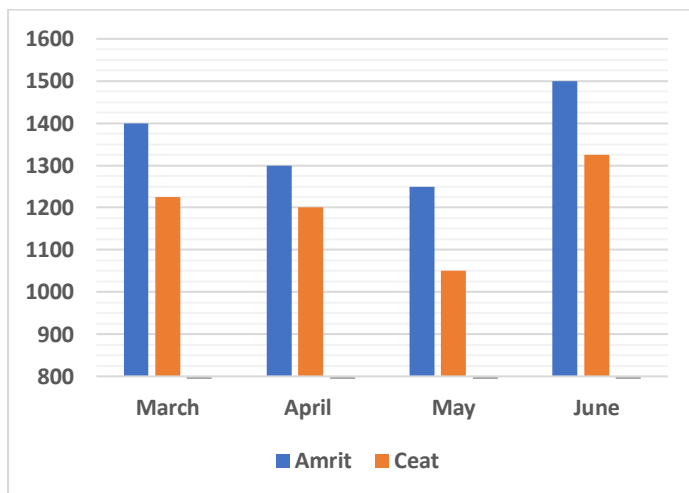
Q44. If E attended 25% more economic workshop than that of A. find the difference between economics workshops attended by E and social science workshop attended by B.

- (a) 110
- (b) 120
- (c) 130
- (d) 140
- (e) 150

Q45. The ratio of science to mathematics workshops attended by C is 3:1, then find the mathematic workshop attended by C is what percentage of social science workshops attended by D.

- (a) 41.67
- (b) 12.67
- (c) 33.12
- (d) 45
- (e) 49

Direction (46-50): The bar graph given below shows the profit earned by Amrit and Ceat in four different months.



Q46. Find the ratio of profit earned by Ceat in May to profit earned by Amrit in June.

- (a) 1:15
- (b) 7:10
- (c) 3:11
- (d) 14:3
- (e) 5:1

Q47. Find the average of profit earned by Ceat in all the given months

- (a) 1100
- (b) 1200
- (c) 1300
- (d) 1400
- (e) 1500

Q48. If the ratio of profit earned by Amrit in June to July is 3:2, then find the difference between profit earned by Amrit in July and Ceat in May.

- (a) 50
- (b) 40
- (c) 30
- (d) 20
- (e) 10

Q49. Find the sum of total profit earned by both in the month of April and May.

- (a) 4800
- (b) 4020
- (c) 3200
- (d) 4400
- (e) 2500

Q50. Profit earned by Ceat in March and April is what percentage of profit earned by Amrit in June.

- (a) 110.67
- (b) 121.67
- (c) 161.67
- (d) 140.67
- (e) 150.67

Q51. A train crosses a vertical pole in 25 seconds while moving at a speed of 72 km/h. If the speed of the train is increased by 18 km/h, find how much less time (in seconds) it will take to cross the same pole.

- (a) 4
- (b) 5
- (c) 9
- (d) 7
- (e) 12

Q52. A shopkeeper marks an article 40% above its cost price and allows a 20% discount on the marked price. Find the profit percentage earned by the shopkeeper.

- (a) 12%
- (b) 10%
- (c) 15%
- (d) 20%
- (e) 18%

Q53. The ratio of the present ages of Dimpi and Kajal is 2 : 3. The sum of Dimpi's age three years ago and Kajal's age five years hence is 52 years. Find the present age (in years) of Dimpi.

- (a) 25
- (b) 15
- (c) 12
- (d) 20
- (e) 10

Q54. Tanmay and Ajay started a business with investments of Rs. 5600 and Rs. 4200 respectively. At the end of the year, Tanmay's share of the profit is Rs. 8400. Find the total profit (in Rs) earned by the business.

- (a) 16300
- (b) 19200
- (c) 15400
- (d) 14200
- (e) 14700

Q55. The weight of A is 200 kg. The weight of B is 25% more than that of C, and the weight of C is 20% more than that of A. Find the sum of the weights (in kg) of A, B, and C.

- (a) 800
- (b) 770
- (c) 740
- (d) 630
- (e) 690

Q56. The ratio of milk to water in a vessel is 9 : 5 respectively. If 10 liters of water are added, the ratio of milk to water in the new mixture becomes 3 : 5 respectively. Find the initial quantity (in liters) of milk in the vessel.

- (a) 10
- (b) 12
- (c) 9
- (d) 8
- (e) 5

Q57. The length of a rectangle is 8 cm more than its breadth. If the perimeter of the rectangle is 40 cm, find the area of the rectangle (in cm^2).

- (a) 84
- (b) 90
- (c) 72
- (d) 68
- (e) 80

Q58. A man invested Rs P at 20% per annum simple interest for 6 years and earned an interest of Rs 2880. Find the value of P - 200.

- (a) 2400
- (b) 2000
- (c) 2100
- (d) 1900
- (e) 2200

Q59. A number is increased by 40%, and the same number is then decreased by 80%. If the difference between the two results is 360, find the original number.

- (a) 400
- (b) 100
- (c) 200
- (d) 300
- (e) 250

Q60. A boat can travel 24 km downstream in 3 hours and the same distance upstream in 6 hours. Find the speed of the boat in still water (in km/hr).

- (a) 4
- (b) 6
- (c) 5
- (d) 7
- (e) 8

Directions (61- 65): In each of these questions a number series is given. In each series only one number is wrong. Find out the wrong number.

Q61. 7, 14, 28, 52, 112, 224

- (a) 7
- (b) 52
- (c) 28
- (d) 224
- (e) 112

Q62. 141, 129, 112, 105, 93, 81, 69

- (a) 105
- (b) 112
- (c) 93
- (d) 81
- (e) 69

Q63. 50, 51, 57, 70, 94, 131, 186

- (a) 51
- (b) 57
- (c) 131
- (d) 186
- (e) 50

Q64. 212, 228, 253, 289, 338, 400, 483

- (a) 400
- (b) 212
- (c) 228
- (d) 289
- (e) 483

Q65. 2, 3, 6, 22, 89, 446, 2677

- (a) 2
- (b) 6
- (c) 3
- (d) 89
- (e) 22

Directions (66-75): What should come in place of question mark (?) in the following questions?

Q66. $\sqrt[3]{729} + 37\frac{1}{2}\% \text{ of } 5\frac{1}{3} = ? + 2$

- (a) 9
- (b) $8\frac{1}{3}$
- (c) 7
- (d) $9\frac{1}{3}$
- (e) 8

Q67. $? \times 65 \div 72 = 195 \times 352 \div 192$

- (a) 369
- (b) 396
- (c) 594
- (d) 297
- (e) 376

Q68. $(444 \div 4) + (625 \div 25) + (2991 \div 3) = ?$

- (a) 1153
- (b) 1143
- (c) 1113
- (d) 1123
- (e) 1133

Q69. $\sqrt{6.25} + 5\frac{1}{5} \times 7\frac{4}{13} + ? = 72$

- (a) 30.5
- (b) 32.5
- (c) 31.5
- (d) 29.5
- (e) 25

Q70. $(\sqrt{7921} - \sqrt[3]{2197}) \times \frac{1}{4} = ?$

- (a) 20
- (b) 19
- (c) 18
- (d) 17
- (e) 16

Q71. $266\frac{2}{3}\% \text{ of } 153 + 58\frac{1}{3}\% \text{ of } 300 = ?$

- (a) 583
- (b) 493
- (c) 575
- (d) 543
- (e) 549

Q72. $77077 \div 7007 \times 125 \div 5 \times 2 = ?$

- (a) 275
- (b) 550
- (c) 1100
- (d) 2200
- (e) 1650

Q73. $25\% \text{ of } 124 + 35\% \text{ of } 60 = ?$

- (a) 52
- (b) 57
- (c) 62
- (d) 67
- (e) 72

Q74. $8557 + 1723 - 1231 - 7321 = (?)^3$

- (a) 11
- (b) 12
- (c) 13
- (d) 14
- (e) 15

Q75. $(?)^2 = 39 \times 1323 \times \frac{1}{117}$

- (a) 19
- (b) 21
- (c) 24
- (d) 27
- (e) 18

Q76. $\sqrt{?} \times \sqrt{3025} = 2695$

- (a) 2401
- (b) 2209

(c) 2601

- (d) 2304
- (e) 2400

Q77. $(98)^2 + (?) = (150)^2 - (80)^2 - 737$

- (a) 6084
- (b) 5759
- (c) 5777
- (d) 6724
- (e) 5658

Q78. $48 + 8 \times 0.75 - 5 = ?$

- (a) 22
- (b) 36
- (c) 49
- (d) 56
- (e) 46

Q79. $18.657 - 7.549 - 4.111 - 1.630 = ?$

- (a) 4.673
- (b) 6.893
- (c) 6.562
- (d) 5.367
- (e) 6.367

Q80. $2950 \div 12.5 + 160 = ?$

- (a) 392
- (b) 390
- (c) 396
- (d) 394
- (e) 400

SOLUTIONS

Directions (1-5):

Sol.

Boxes
J
M
L
K
N
O
P

S1. Ans. (b)

S2. Ans. (e)

S3. Ans. (c)

S4. Ans. (d)

S5. Ans. (d)

S6. Ans. (d)

Sol. FATE, FEAT, FETA

Directions (7-9):

S7. Ans. (e)

Sol. I. $K > V$ (False)

II. $M \leq Q$ (False)

S8. Ans. (a)

Sol. I. $N > E$ (True)

II. $S \leq A$ (False)

S9. Ans. (c)

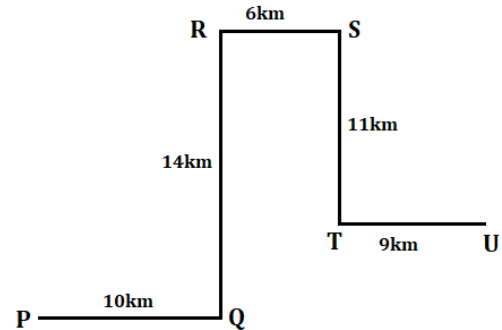
Sol. I. $G > B$ (False)

II. $G \leq B$ (False)

Both conclusions are satisfying the 'either-or' condition.

Directions (10-12):

Sol.



S10. Ans. (a)

S11. Ans. (c)

S12. Ans. (b)

Directions (13-17):

Sol.

Days	Persons
Monday	R
Tuesday	T
Wednesday	S
Thursday	P
Friday	Q
Saturday	U
Sunday	V

S13. Ans. (c)

S14. Ans. (d)

S15. Ans. (c)

S16. Ans. (a)

S17. Ans. (b)

Directions (18-20):

Sol. $J > N$ (80kg) $> M > K > P > L$

S18. Ans. (e)

S19. Ans. (d)

S20. Ans. (b)

Directions (21-25):

S21. Ans. (c)

Sol. 4th from left = R

6th to the right of R = T

S22. Ans. (d)

Sol. Two - @ E 9, ! U 8

S23. Ans. (a)

Sol. If last five elements are dropped from the series, A will be ninth from right end

S24. Ans. (b)

Sol. Fifth digit from right end: 5

Sixth to the left of 5: @

S25. Ans. (e)

Sol. None

Directions (26-30):

Sol.

Words	Codes
Light	hn
Yellow	ps
Box	rm
Gloves	fd
Shiny/ Spectacles	gh/st
New	gi
sparkle	er

S26. Ans. (b)

S27. Ans. (e)

S28. Ans. (c)

S29. Ans. (c)

S30. Ans. (b)

S31. Ans. (c)

Sol. One

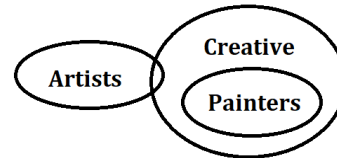
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123456789

Directions (32-34):

S32. Ans. (b)

Sol.



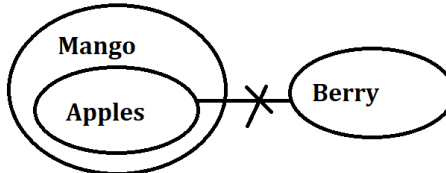
S33. Ans. (c)

Sol.



S34. Ans. (a)

Sol.

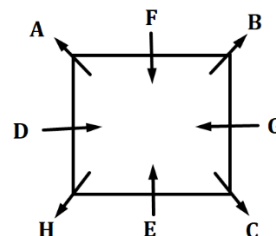


S35. Ans. (a)

Sol. IMAGINED: JLBFIJMF

Directions (36-40):

Sol.



S36. Ans. (b)

S37. Ans. (e)

S38. Ans. (e)

S39. Ans. (b)

S40. Ans. (b)

S41. Ans. (a)

Sol.

Required answer = $136:120 = 34:30 = 17:15$

S42. Ans. (d)

Sol.

Required answer = $\frac{136+134+150}{3} = 140$

S43. Ans. (a)

Sol.

Required answer = $\frac{120+80-100}{100} \times 100 = 100\%$

S44. Ans. (c)

Sol.

Economic workshop attended by E = 125% of 188 = 235

Required answer = $235 - 105 = 130$

S45. Ans. (a)

Sol.

Mathematics workshops attended by C =

$\frac{1}{3} \times 150 = 50$

Required answer = $\frac{50}{120} \times 100 = 41.67\%$

S46. Ans. (b)

Sol.

Required answer = $1050:1500 = 21:30 = 7:10$

S47. Ans. (b)

Sol.

Required answer = $\frac{1225+1200+1050+1325}{4} = 1200$

S48. Ans. (a)

Sol.

Profit earned by Amrit in July = $\frac{2}{3} \times 1500 = 1000$

Required answer = $1050 - 1000 = 50$

S49. Ans. (a)

Sol.

Required answer = $1300 + 1200 + 1250 + 1050 = 4800$

S50. Ans. (c)

Sol.

Required answer = $\frac{1225+1200}{1500} \times 100 = 161.67\%$

S51. Ans (b)

Sol.

Information Given in the Question:

Train crosses a pole in 25 seconds at 72 km/h

New speed = $72 + 18 = 90$ km/h

Need to find: How much less time it takes at new speed

Concept/Formula Used in the Question:

Speed (m/s) = km/h $\times 5/18$

Length = Speed \times Time

Time = Length / Speed

Detailed Explanation:

Speed = $72 \times 5/18 = 20$ m/s

Length of train = $20 \times 25 = 500$ meters

New speed = $90 \times 5/18 = 25$ m/s

New time = $500 \div 25 = 20$ seconds

Required time = $25 - 20 = 5$ seconds

S52. Ans (a)

Sol.

Information Given in the Question:

Marked price is 40% above cost price

Discount allowed = 20%

Need to find profit percentage

Concept/Formula Used in the Question:

Marked Price (MP) = Cost Price (CP) \times (1 + Markup%)

Selling Price (SP) = MP \times (1 - Discount%)

Profit % = $[(SP - CP)/CP] \times 100$

Detailed Explanation:

Let the Cost Price (CP) be Rs 100 (assumed for simplicity)

Marked Price (MP) = $\text{₹}100 \times 1.40 = \text{₹}140$

Selling Price (SP) = ₹140 × 0.80 = ₹112

Profit = ₹112 - ₹100 = ₹12

Profit % = $(12 / 100) \times 100 = 12\%$

S53. Ans (d)

Sol.

Information Given in the Question:

Present age ratio of Dimpi : Kajal = 2 : 3

Dimpi's age 3 years ago + Kajal's age 5 years

hence = 52 years

Need to find Dimpi's present age

Concept/Formula Used in the Question:

Let present ages be: Dimpi = 2x, Kajal = 3x

Dimpi's age 3 years ago = 2x - 3

Kajal's age 5 years hence = 3x + 5

Detailed Explanation:

Let Dimpi's present age = 2x

Let Kajal's present age = 3x

Given:

$(2x - 3) + (3x + 5) = 52$

$2x - 3 + 3x + 5 = 52$

$5x + 2 = 52$

$5x = 50$

$x = 10$

So, Dimpi's present age = 2x = 2 × 10 = 20 years

S54. Ans (e)

Sol.

Information Given:

Tanmay invested Rs 5600

Ajay invested Rs 4200

Tanmay's profit share = Rs 8400

Asked: Total profit

Formula Used:

Profit ∝ Investment (time same)

Explanation:

Investment ratio Tanmay : Ajay = 5600 : 4200 = 4 : 3

Let total profit = 7k, then Tanmay's share = 4k

Given 4k = 8400 → k = 2100

Total profit = 7k = 7 × 2100 = 14700 Rs

S55. Ans (c)

Sol.

Information Given in the Question:

Weight of A = 200 kg

C is 20% more than A → C = A + 20% of A

B is 25% more than C → B = C + 25% of C

Need to find total weight = A + B + C

Detailed Explanation:

A's weight = 200 kg

C's weight = 200 + 20% of 200 = 200 × 1.20 = 240 kg

B's weight = 240 + 25% of 240 = 240 × 1.25 = 300 kg

Total weight = A + B + C = 200 + 300 + 240 = 740 kg

S56. Ans (c)

Sol.

Information Given in the Question:

Initial ratio of milk : water = 9 : 5

10 liters of water added

New ratio of milk : water = 3 : 5

Detailed Explanation:

Let milk = 9x, water = 5x

After adding 10 liters of water:

New water = 5x + 10

New ratio:

$\frac{9x}{5x + 10} = \frac{3}{5}$

$9x \times 5 = 3 \times (5x + 10)$

$45x = 15x + 30$

$45x - 15x = 30$

$30x = 30$

$x = 1$

So, milk = 9x = 9 × 1 = 9 liters

S57. Ans (a)

Sol.

Information Given in the Question:

Length is 8 cm more than breadth → L = B + 8

Perimeter = 40 cm

Need to find the **area** of the rectangle

Concept/Formula Used in the Question:

Perimeter of rectangle = $2(L + B)$

Area of rectangle = $L \times B$

Detailed Explanation:

Let breadth = B

Then length = $B + 8$

Perimeter = 40

So,

$$2(B + B + 8) = 40$$

$$\Rightarrow 2(2B + 8) = 40$$

$$\Rightarrow 4B + 16 = 40$$

$$\Rightarrow 4B = 24$$

$$\Rightarrow B = 6$$

Then,

$$\text{Length} = B + 8 = 6 + 8 = 14$$

$$\text{Area} = L \times B = 14 \times 6 = 84 \text{ cm}^2$$

S58. Ans (e)

Sol.

Information Given in the Question:

Simple Interest = ₹2880

Rate = 20%

Time = 6 years

Concept/Formula Used in the Question:

$$SI = \frac{P \times R \times T}{100}$$

Detailed Explanation:

$$2880 = \frac{P \times 20 \times 6}{100}$$

$$\Rightarrow 2880 = \frac{120P}{100}$$

$$\Rightarrow 2880 = 1.2P$$

$$\Rightarrow P = \frac{2880}{1.2} = 2400$$

$$\text{Now, } P - 200 = 2400 - 200 = 2200$$

S59. Ans (d)

Sol.

Information Given in the Question:

A number is first increased by 40%

Then the same number is decreased by 80%

The difference between the two results = 360

Detailed Explanation:

Let the number be x

Increased value = $1.4x$

Decreased value = $0.2x$

$$\text{Difference} = 1.4x - 0.2x = 1.2x$$

Now,

$$1.2x = 360$$

$$\Rightarrow x = \frac{360}{1.2} = 300$$

S60. Ans (b)

Sol.

Information Given in the Question:

Downstream: 24 km in 3 hours \rightarrow Speed = $24 \div 3 = 8 \text{ km/h}$

Upstream: 24 km in 6 hours \rightarrow Speed = $24 \div 6 = 4 \text{ km/h}$

Need to find **speed of boat in still water**

Concept/Formula Used in the Question:

Downstream speed = Boat speed in still water + Stream speed

Upstream speed = Boat speed in still water - Stream speed

Speed of boat in still water = (Downstream + Upstream) $\div 2$

Detailed Explanation:

Downstream speed = 8 km/h

Upstream speed = 4 km/h

Speed of boat in still water = $(8 + 4) \div 2 = 6 \text{ km/h}$

S61. Ans. (b)

Sol. Wrong number = 52

Pattern of the series

$$7 \times 2 = 14$$

$$14 \times 2 = 28$$

$$28 \times 2 = 56$$

$$56 \times 2 = 112$$

$$112 \times 2 = 224$$

S62. Ans. (b)

Sol.

Wrong number = 112

Pattern of the series

$$141 - 12 = 129$$

$$129 - 12 = 117$$

$$117 - 12 = 105$$

$$105 - 12 = 93$$

$$93 - 12 = 81$$

$$81 - 12 = 69$$

S63. Ans. (d)

Sol. Wrong number = 186

Pattern of the series

$$\begin{array}{cccccccc} 50, & 51, & 57, & 70, & 94, & 131, & & 185 \\ & +1 & +6 & +13 & +24 & +37 & & +54 \\ & & +5 & +7 & +11 & +13 & & +17 \end{array}$$

S64. Ans. (a)

Sol. Wrong number = 400

Pattern of the series

$$212 + 4^2 = 228$$

$$228 + 5^2 = 253$$

$$253 + 6^2 = 289$$

$$289 + 7^2 = 338$$

$$338 + 8^2 = 402$$

$$402 + 9^2 = 483$$

S65. Ans. (b)

Sol.

Wrong number = 6

Pattern of the series

$$2 \times 1 + 1 = 3$$

$$3 \times 2 + 1 = 7$$

$$7 \times 3 + 1 = 22$$

$$22 \times 4 + 1 = 89$$

$$89 \times 5 + 1 = 446$$

$$446 \times 6 + 1 = 2677$$

S66. Ans.(a)

Sol.

$$9 + \frac{3}{8} \times \frac{16}{3} = ? + 2$$

$$9 + 2 = ? + 2$$

$$? = 9$$

S67. Ans.(b)

Sol.

$$? \times \frac{65}{72} = \frac{195 \times 352}{192}$$

$$? = \frac{195 \times 352 \times 72}{192 \times 65}$$

$$? = 396$$

S68. Ans.(e)

Sol.

$$111 + 25 + 997 = ?$$

$$1133 = ?$$

S69. Ans.(c)

Sol.

$$2.5 + \frac{26}{5} \times \frac{95}{13} + ? = 72$$

$$40.5 + ? = 72$$

$$? = 72 - 40.5$$

$$? = 31.5$$

S70. Ans.(b)

Sol.

$$[89 - 13] \times \frac{1}{4} = ?$$

$$76 \times \frac{1}{4} = ?$$

$$? = 19$$

S71. Ans.(a)

Sol.

$$2[133.33\%] \text{ of } 153 + \left(25 + 33\frac{1}{3}\right)\% 300 = ?$$

$$2\left[100 + 33\frac{1}{3}\right]\% \text{ of } 153 + \frac{300}{4} + \frac{300}{3} = ?$$

$$2\left[153 + \frac{153}{3}\right] + 75 + 100 = ?$$

$$2 \times 204 + 175 = ?$$

$$408 + 175 = ?$$

$$583 = ?$$

S72. Ans.(b)

Sol.

$$\frac{77077}{7007} \times \frac{125}{5} \times 2 = ?$$

$$11 \times 25 \times 2 = ?$$

$$550 = ?$$

S73. Ans.(a)

Sol.

$$\frac{1}{4} \times 124 + 35\% \text{ of } 60 = ?$$

$$31 + \frac{7}{20} \times 60 = ?$$

$$31 + 21 = ?$$

$$52 = ?$$

S74. Ans.(b)

Sol.

$$8557 + 1723 - 1231 - 7321 = (?)^3$$

$$1236 + 492 = (?)^3$$

$$1728 = (?)^3$$

$$? = 12$$

S75. Ans.(b)

Sol.

$$(?)^2 = \frac{39 \times 1323}{13 \times 9}$$

$$(?)^2 = 441$$

$$? = 21$$

S76. Ans.(a)

Sol.

$$\sqrt{?} = \frac{2695}{55}$$

$$= 49$$

$$\Rightarrow ? = 2401$$

S77. Ans.(b)

Sol.

$$(?) = 15363 - 9604$$

$$? = 5759$$

S78. Ans.(c)

Sol.

$$48 + 8 \times 0.75 - 5 = ?$$

$$? = 49$$

S79. Ans.(d)

Sol.

$$18.657 - 7.549 - 4.111 - 1.630 = ?$$

$$? = 5.367$$

S80. Ans.(c)

Sol.

$$2950 \div 12.5 + 160 = ?$$

$$? = 236 + 160$$

$$= 396$$