

IBPS RRB Clerk Pre 2025 Memory Based Paper Based on 7th December 2nd Shift

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

T % 7 Q B @ 3 A M & 9 \$ Z 8 R ! 6 # T 2 ^ K 9 L \$ C

Q1. Which element is 12th from the left end?

- (a) A
- (b) 9
- (c) 8
- (d) \$
- (e) 6

Q2. How many symbols are immediately preceded by a letter and immediately followed by a symbol and

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

Q3. Which element is the 3rd digit from the right end?

- (a) 8
- (b) K
- (c) 6
- (d) #
- (e) R

Q4. If all the letters are arranged in alphabetical order from the left end?

- (a) A
- (b) M
- (c) 3
- (d) B
- (e) K

Q5. How many letters in the series are immediately preceded by a symbol and immediately followed by a letter?

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



Directions (6-10): Read the given information carefully and answer the related questions:

Seven persons A, B, C, D, E, F and G were born on different days of a week from Monday to Sunday (not necessarily in the same order).

Three persons were born between B and C. Only two persons were born before C. D was born two persons before F. Two persons were born between A and D. A was born immediately before E. E was not born on Tuesday.

Q6. Who was born three persons after G?

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

Q7. How many persons were born on Tuesday?

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

Q8. Which of the following statements is correct?

- (a) E – Tuesday
- (b) F – Wednesday
- (c) D – Friday
- (d) A – Saturday
- (e) G – Monday

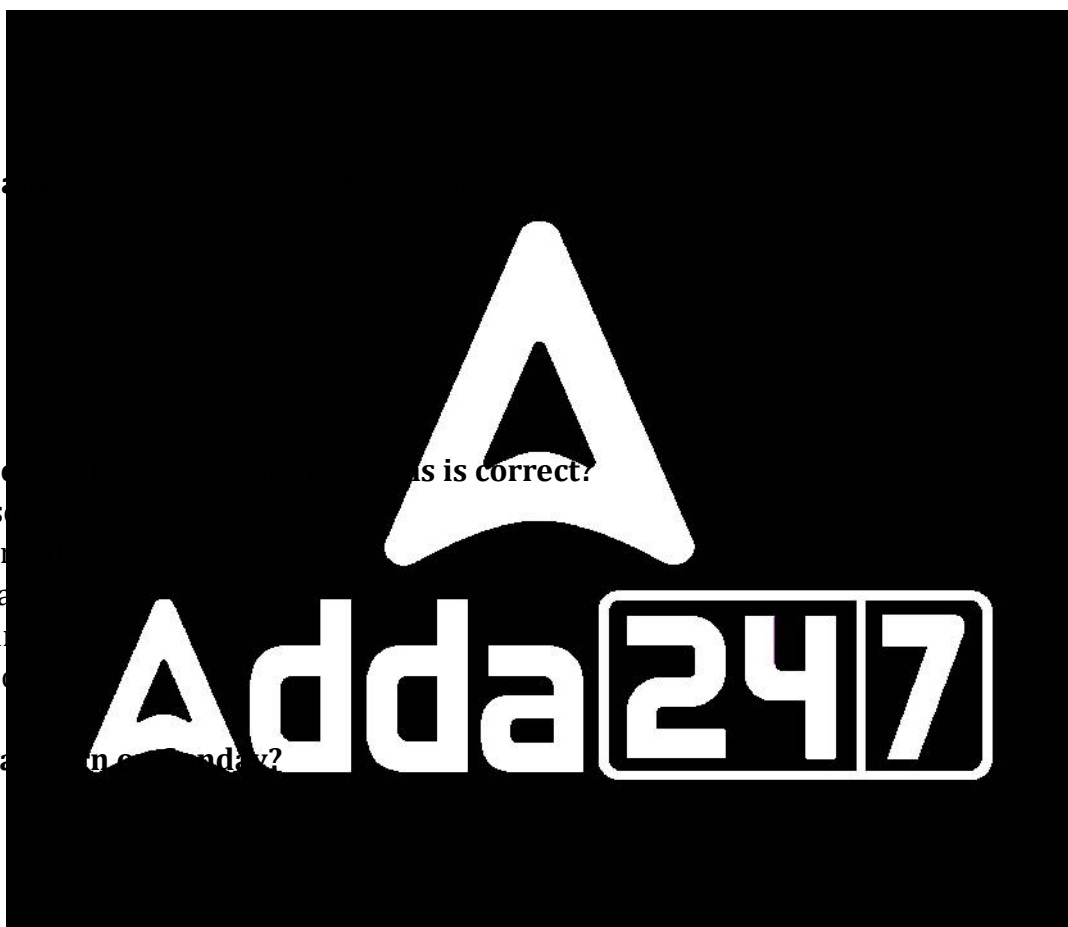
Q9. Who was born on Sunday?

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

Q10. Which of the following statements is/are not true?

- I. Three persons were born before A.
- II. F was born on Thursday
- III. No person was born between G and C.

- (a) Both I and III
- (b) Only III
- (c) Only II
- (d) Both I and II
- (e) All I, II and III



Directions (11-12): In this question, relationship between different elements is shown in the statements. The statements are followed by conclusions. Give answer:

Q11. Statements: $P < Q > J \geq R = K < T < U$

Conclusions:

I. $Q > T$

II. $U > R$

- (a) Only conclusion I is true
- (b) Only conclusion II is true
- (c) Either conclusion I or II is true
- (d) Neither conclusion I nor II is true
- (e) Both conclusions are true

Q12. Statement:

Conclusion:

I. $E > G$

II. $A < S$

- (a) Only conclusion I is true
- (b) Only conclusion II is true
- (c) Either conclusion I or II is true
- (d) Neither conclusion I nor II is true
- (e) Both conclusions are true

Q13. In the following pairs of letters, how many pairs of letters have as many letters between them (both in the English alphabet and in the pair) as there are in the given pair?

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

Directions (13-14): Read the following information carefully and answer the questions given below.

In a certain coded language

“Utility goods new supply” is coded as “ta pm rp ke”

“Market that needs goods” is coded as “zu lx pm vo”

“Supply grows market utility” is coded as “ta ke zu mj”

“That utility boost service” is coded as “lx ta yt qr”

Q14. If “Service sector” is coded as “ot qr” then what is the code for boost?

- (a) mj
- (b) ta
- (c) zu
- (d) lx
- (e) yt

Q15. Which word is coded as 'pm rp'?

- (a) goods improve
- (b) market goods
- (c) service new
- (d) New goods
- (e) Cannot be determined

Q16. Which of the following statement(s) is/are definitely correct?

- (a) That – zu
- (b) Market -lx
- (c) Needs -vo
- (d) supply –
- (e) All are co

Q17. What

- (a) mj
- (b) pm
- (c) ta
- (d) vo
- (e) ke

Q18. Which word is coded as 'ke vo'?

- (a) zu ta
- (b) ta lx
- (c) ke zu
- (d) mj zu
- (e) ta pm

Directions (Q19-Q20): Study the information carefully and answer the questions given below.

E is the only daughter of C. F is the sister-in-law of C. D is the mother of E. A is the father of B who is the father of H. C is the brother of D. How many members are there in the family.

Q19. How is

- (a) Daughter
- (b) Nephew
- (c) Son
- (d) Father
- (e) Son-in-law

Q20. How many female members are there in the family?

- (a) Three
- (b) Four
- (c) Five
- (d) Two
- (e) Cannot be determined

Q21. If M is married to F, then how M is related to B?

- (a) Father
- (b) Brother
- (c) Uncle
- (d) Brother-in-law
- (e) Can't be determined

Directions (22-26): Read the given information carefully and answer the related questions:

Six persons A, B, C, D, E and F were born on two different dates – 15 and 22 of three different months – June, September and December in same year. The persons were not born in the same order as given.

C was born on 15th of a month and E were born in same month. D was born on an even numbered date. F was born on 22nd of a month.

Q22. Who was born first?

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

Q23. How many persons were born before D?

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

Q24. F was born on

- (a) 22 June
- (b) 15 December
- (c) 15 September
- (d) 22 September
- (e) 22 December

Q25. Four of the following five are similar in a certain manner and form a group, which among the following is not related to the group?

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



Q26. Who among the following was born immediately after A?

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

Q27. Which of the following will be the next element in the given series.

AC4 BD7 CE10 DF13 EG16 ?

- (a) IH19
- (b) HI20
- (c) FG19
- (d) FH19
- (e) FH18

Directions

Point A is 10 m north of point B. Point C is 5 m south of point B. Point D is 10 m east of point H.

Q28. What is the direction of point A with respect to point B?

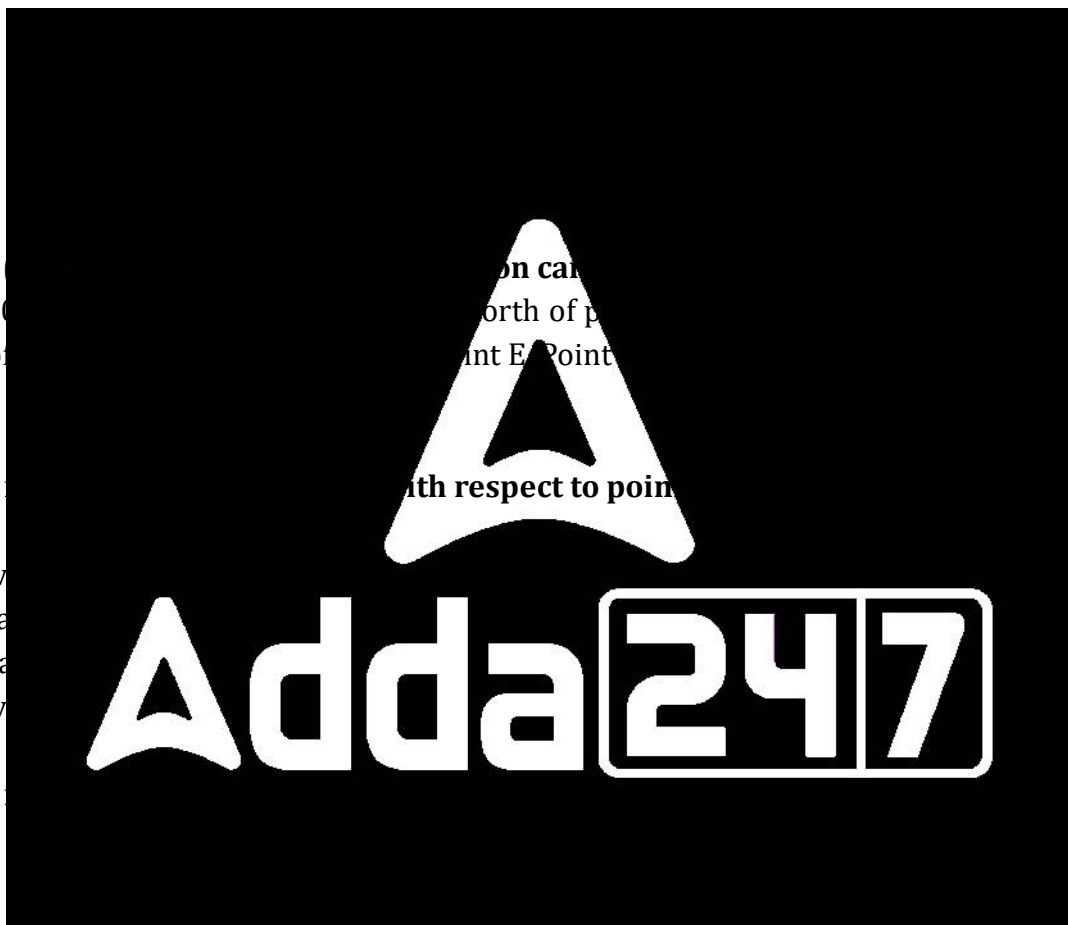
- (a) North
- (b) South-west
- (c) North-east
- (d) South-east
- (e) North-west

Q29. What is the distance between point A and point B?

- (a) 5m
- (b) 17m
- (c) 12m
- (d) $\sqrt{218}$ m
- (e) $\sqrt{61}$ m

Q30. Four of the following five are similar in a certain manner and form a group, which of the following is not related to the group?

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



Directions (31-34): The following question contains some statements followed by two conclusions numbered I and II. Assume that all the statements are true, even if they seem to differ from commonly known facts. Analyze both conclusions and decide which one logically follows from the given statements.

- (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

Q31. Statements:

Only a few men are leaders.

All leaders are men.

Conclusion:

I. Some men are leaders.

II. Some leaders are men.

Q32. Statements:

Only a few boxes are just.

No box is just.

Conclusion:

I. All boxes are just.

II. No box is just.

Q33. Statements:

Only a few writers are poets.

All poets are writers.

Some critics are writers.

Conclusion:

I. Some writers are critics.

II. No writer is a critic.

Q34. Statements:

Only a few cooks are bakers.

Some bakers are cooks.

No cooks are authors.

Conclusions:

I. Some chefs are cooks

II. Some bakers are not authors

Q35. In the word 'INTRODUCE', if the letters are arranged in alphabetical order from left, then which letter will be the 6th letter from left end?

- (a) I
- (b) O
- (c) R
- (d) N
- (e) T



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

Eight persons A, B, C, D, E, F, G and H sit around a square shaped table, but not in same order as given. Four persons sit at the corner of the table facing inside and rest four persons sit at the middle of each side facing outside.

D sits immediate right of H. Three persons sit between D and A. C sits second to the right of A. No one sits between E and B. G sits this to the left of E. G faces inside.

Q36. Four of the following five are similar in a certain manner and form a group. Who among the following is not related to the group?

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

Q37. What is the position of H?

- (a) Fourth to the right of A
- (b) Third to the right of A
- (c) Immediate right of A
- (d) Second to the right of A
- (e) Second to the left of A

Q38. Who are immediate neighbors of A?

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

Q39. How many persons sit between D and A?

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

Q40. Which among the following statement is true?

- (a) E faces inside
- (b) H and G are immediate neighbors
- (c) F sits opposite to H
- (d) D sits second to the right of G
- (e) All the statements are true



Directions (41-45): The table given below shows the number of guest and number of rooms in five different hotels.

Hotels	Number of rooms	Number of guests
A	34	72
B	39	51
C	52	60
D	39	77
E	40	100

Q41. 51 guests living in $\frac{2}{3}$ rd of the rooms in D. find the remining number of guests living in per room in D.

- (a) 9
- (b) 3
- (c) 16
- (d) 6
- (e) 2

Q42. Find the

- (a) 90
- (b) 73
- (c) 10
- (d) 61
- (e) 92

Q43. Find the

- (a) 17:20
- (b) 17:13
- (c) 16:17
- (d) 26:23
- (e) 29:23

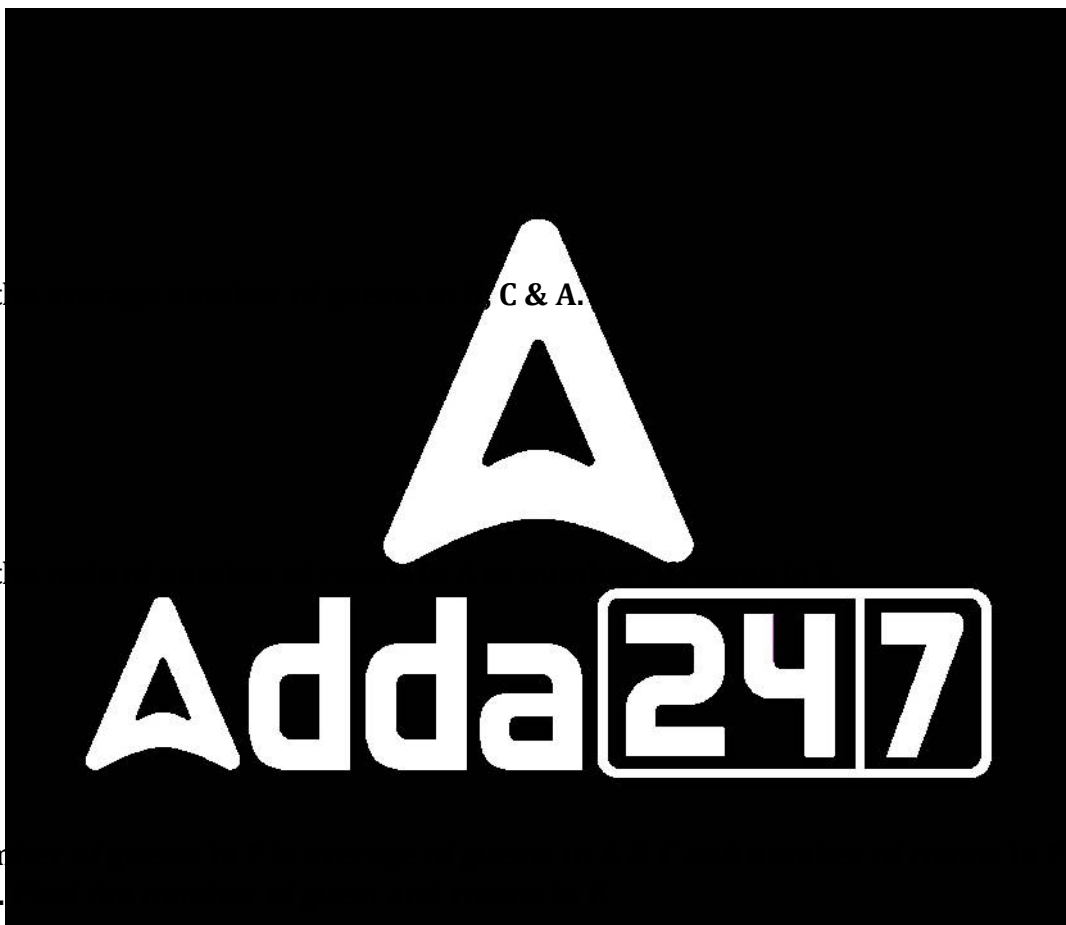
Q44. If num

rooms in E.

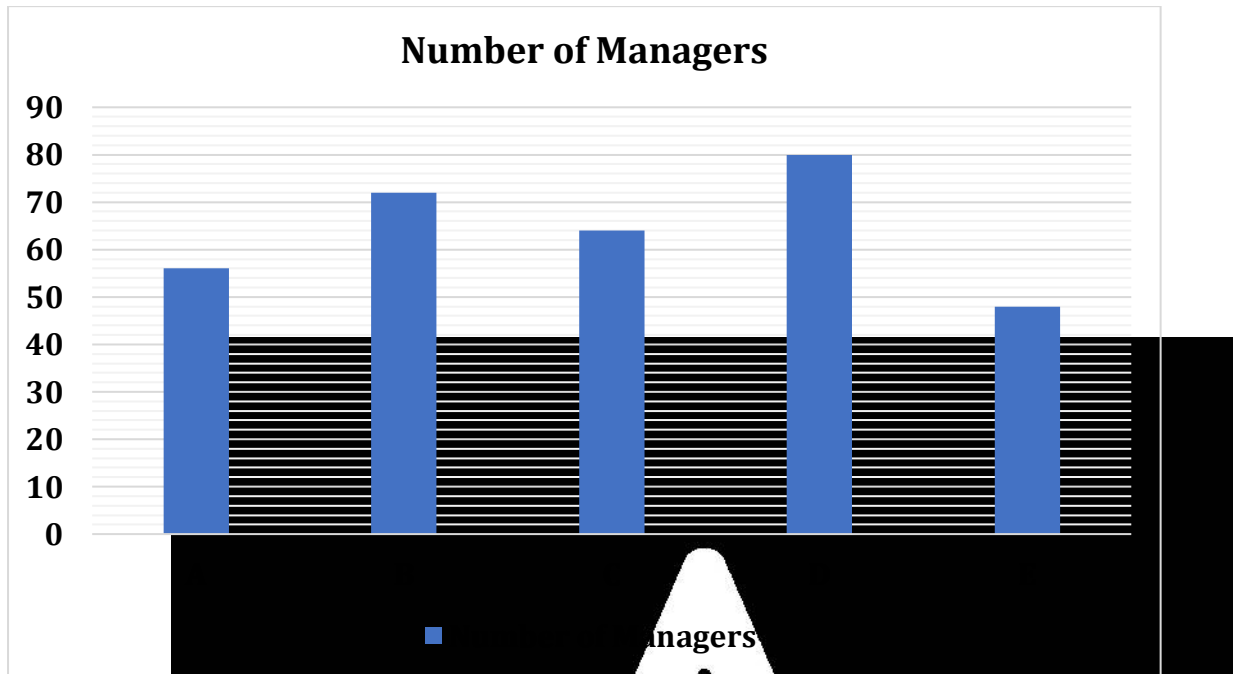
- (a) 66,32
- (b) 32,33
- (c) 66,39
- (d) 61,34
- (e) 21,56

Q45. Number of guests in B is what percentage of number of guests in C.

- (a) 89
- (b) 83
- (c) 85
- (d) 86
- (e) 82



Directions (46-50): The bar graph shows the number of managers in five companies. Read the data and answer the following question.



Q46. Find the number of managers in company A & E.

- (a) 59
- (b) 53
- (c) 56
- (d) 46
- (e) 42

Q47. If the ratio of male to female managers in C and E is 3:1 and 1:1 respectively, then find the females managers in C.

- (a) 39
- (b) 40
- (c) 36
- (d) 16
- (e) 24

Q48. If the number of managers in A is 12.5% less than the manager in F, find the difference between manager in F and D.

- (a) 39
- (b) 40
- (c) 36
- (d) 16
- (e) 24

Q49. Managers in C is what percentage of managers in D.

- (a) 80
- (b) 83
- (c) 85
- (d) 86
- (e) 82

Q50. Find the ratio of managers in A and D together to managers in E and B together.

- (a) 17:15
- (b) 17:13
- (c) 16:17
- (d) 26:23
- (e) 29:23

Q51. The number of managers in C is 12% less than the number of managers in D. If the number of managers in E is 10, find the number of managers in A.

- (a) 22
- (b) 18
- (c) 6
- (d) 12
- (e) 10

Q52. The quantity of milk received in jars A, B, and C are in the ratio 4:1:2 respectively. The total amount of milk in all three jars together is 38 liters. If 10 liters of milk are added to jar B, find the new ratio of milk in jars A, B, and C respectively.

- (a) 1:2:1
- (b) 2:1:1
- (c) 1:1:2
- (d) 2:1:2
- (e) 1:2:3

Q53. A man invested equal amounts in two schemes, Scheme A and Scheme B. Scheme A offers simple interest at 8% per annum for 2 years, while Scheme B offers simple interest at 14% per annum for 2 years. The total simple interest earned from both schemes together is Rs 4,400. Find the amount invested in Scheme A (in Rs).

- (a) 10000
- (b) 12000
- (c) 8000
- (d) 7500
- (e) 9000

Q54. Tanisha and Juli started a business together with a total investment of Rs 5,000. After 8 months, Juli left the business. At the end of the year, the profit-sharing ratio of Tanisha to Juli was equal. Find the initial investment of Tanisha (in Rs).

- (a) 2500
- (b) 1500
- (c) 2000
- (d) 3000
- (e) 1000

Q55. A train crosses a platform in 21 seconds while running at a speed of 72 km/h. The length of the platform is 68 meters less than the length of the train. Find the length of the train (in meters).

- (a) 120
- (b) 240
- (c) 180
- (d) 150
- (e) 200

Q56. The present age of Hari and Mahesh are in the ratio of 5 : 6 respectively. Mahesh spends 20% of his present age in years. The ratio of the remaining age of Mahesh to the remaining age of Hari is in the ratio of 10 : 9. Find the present age of Hari. The remaining amount to Rs

- (a) 25000
- (b) 35000
- (c) 20000
- (d) 30000
- (e) 14000

Q57. The present ages of two sons together are equal to the present age of their father. Three years ago, the sum of the ages of the two sons was equal to the present age of the father. Find the present age of the father.

- (a) 49
- (b) 47
- (c) 43
- (d) 48
- (e) 50

Q58. The area of a rectangle is 98 cm^2 , and the breadth of the rectangle is half of its length. Find the sum of the length and breadth of the rectangle (in cm).

- (a) 21
- (b) 14
- (c) 18
- (d) 24
- (e) 32

Q59. A can complete a piece of work in 20 days, and B can complete the same work in 30 days. Working together, A, B, and C can finish the work in 10 days. Find the number of days C alone would take to complete the work.

- (a) 40
- (b) 80
- (c) 55
- (d) 45
- (e) 60

Q60. A shopkeeper marks the price of an article 50% above its cost price and allows a 20% discount on the marked price. Find the profit percentage (in Rs).

- (a) 40
- (b) 60
- (c) 50
- (d) 30
- (e) 80

Directions (Questions 61 to 64) : Study the information given in the given figure and answer the questions.

Q61. 12000

- (a) 6000
- (b) 1200
- (c) 750
- (d) 325
- (e) 1500

Q62. 1.5, 3, 7, 469, 18, 7, 509

- (a) 117
- (b) 1.5
- (c) 29
- (d) 7509
- (e) 3

Q63. 160, 173, 190, 209, 232, 260, 292

- (a) 190
- (b) 173
- (c) 160
- (d) 260
- (e) 292

Q64. 285, 281, 265, 229, 160, 65

- (a) 285



-
- (b) 281
(c) 265
(d) 65
(e) 160

Q65. 10,1343, 2343, 3072, 3584, 3927, 4143

- (a) 1343
(b) 2343
(c) 10
(d) 3072
(e) 3584

Directions

question:

Q66. (66% of

- (a) 166
(b) 148
(c) 288
(d) 316
(e) 198

Q67. $\frac{?}{16} = \frac{7}{?} \times \frac{1}{343}$

- (a) 4
(b) 8
(c) 6
(d) 1
(e) 7

Q68. $676^{1/2}$

- (a) 4
(b) 8
(c) 6
(d) 2
(e) 3

Q69. $22 \times 25 + 400 = ?$

- (a) 950
(b) 960
(c) 920
(d) 900
(e) 980



Q70. 220% of $250 + 60\%$ of $550 = ? \times 8$

- (a) 140
- (b) 130
- (c) 125
- (d) 120
- (e) 110

Q71. 25% of $320 + 40\%$ of $250 + 33\frac{1}{3}\%$ of $30 = ?$

- (a) 190
- (b) 230
- (c) 250
- (d) 200
- (e) 240

Q72. $16 \times 16 = ?$

- (a) 1
- (b) 3
- (c) 2
- (d) 4
- (e) 6

Q73. $520 + 40\%$ of $120 = ?$

- (a) 150
- (b) 130
- (c) 120
- (d) 110
- (e) 100

Q74. $[2 \times \{42 - 3(12 - 10) + 6\}] = ?$

- (a) 105
- (b) 102
- (c) 101
- (d) 104
- (e) 100

Q75. $600 + (45 \times 16) - ? = 25$

- (a) 1395
- (b) 1295
- (c) 1285
- (d) 1495
- (e) 1290



Q76. $4570 + 430 - ?^2 = 50^2$

- (a) 50
- (b) 55
- (c) 52
- (d) 53
- (e) 54

Q77. $\sqrt{1225} + \sqrt{196} = ?^2 + 24$

- (a) 4
- (b) 5
- (c) 8
- (d) 3
- (e) 9

Q78. $4500 + ?^2 = 10000$

- (a) 1250
- (b) 1230
- (c) 1280
- (d) 1200
- (e) 1210

Q79. $3\frac{1}{2} + 4\frac{3}{4}$

- (a) $3\frac{3}{4}$
- (b) $2\frac{3}{4}$
- (c) $6\frac{3}{4}$
- (d) $9\frac{3}{4}$
- (e) $5\frac{3}{4}$

Q80. $\frac{25}{69} \times \frac{23}{5}$

- (a) 5
- (b) 3
- (c) 8
- (d) 1
- (e) 4



Solutions

S1. Ans.(d)

S2. Ans.(a)

Sol. One -T 2 ^

S3. Ans.(e)

S4. Ans.(a)

S5. Ans.(e)

Directions (6-10):

Sol.

Days
Monday
Tuesday
Wednesday
Thursday
Friday
Saturday
Sunday

S6. Ans.(c)

S7. Ans.(a)

S8. Ans.(e)

S9. Ans.(b)

S10. Ans.(a)

Directions

S11. Ans.(b)

Sol. I. Q > T (False)

II. U > R (True)

S12. Ans.(d)

Sol. I. E > G (False)

II. A < S (False)

S13. Ans.(d)



Sol.

C H A N G E

Directions (14-18):

Sol.

Words	Codes
Utility	ta
Goods	
Supply	
New	
Market	
That	
Needs	
Grows	
Service/ Bo	

S14. Ans.(e)

S15. Ans.(d)

S16. Ans.(c)

S17. Ans.(e)

S18. Ans.(b)

Directions

Sol.

D (-) = A (+) — G (-)
|
F (-) — B (+) = C (-)
|
E (-) — H (+)

S19. Ans.(c)

S20. Ans.(c)

S21. Ans.(d)

Directions (22-26):
Sol.

Months	Dates	Persons
June	15	E
	22	A
September	15	B
	22	D
December		

S22. Ans.(b)

S23. Ans.(c)

S24. Ans.(e)

S25. Ans.(a)

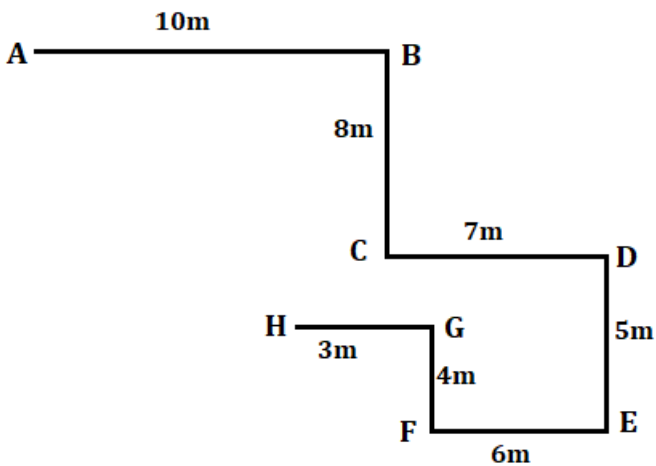
Sol. Except 1 and 2, all other letters are both adjacent

S26. Ans.(d)

S27. Ans.(d)

Sol. First letter is media, next letter is 2
Second letter is media, next letter is 4
Number = Immediate by 3 (+3)

Directions (28-32):
Sol.



S28. Ans.(c)

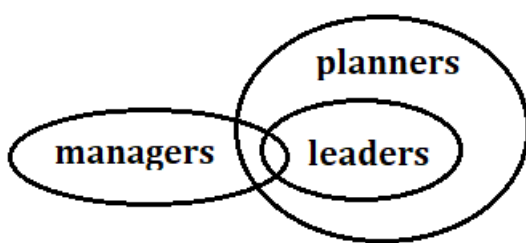
S29. Ans.(a)

S30. Ans.(e)

Directions (31-34):

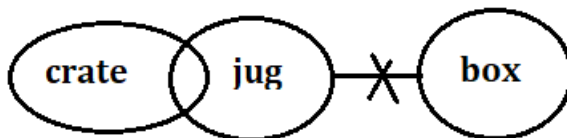
S31. Ans.(a)

Sol.



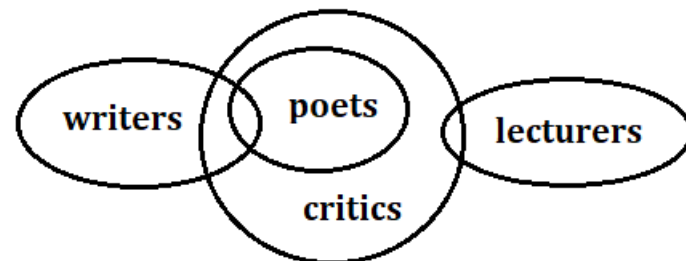
S32. Ans.(d)

Sol.



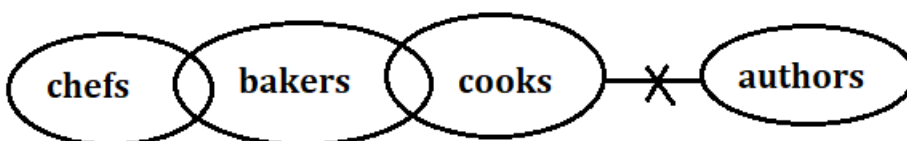
S33. Ans.(c)

Sol.



S34. Ans.(b)

Sol.

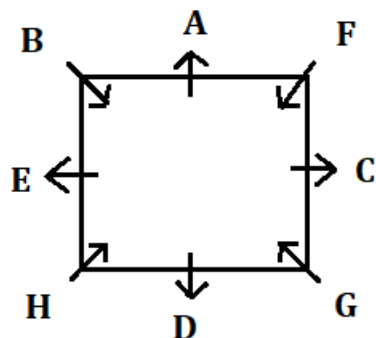


S35. Ans.(b)

Sol. INTRODUCE – CDEINORTU

Directions (36-40):

Sol.



S36. Ans.(a)

S37. Ans.(d)

S38. Ans.(c)

S39. Ans.(d)

S40. Ans.(c)

S41. Ans.(e)

Sol.

$2/3^{\text{rd}}$ of the rooms in D = $2/3 \times 39 = 26$

Remaining guest in D = $77 - 51 = 26$

Remaining rooms in D = $39 - 26 = 13$

Guests per room = $26 / 13 = 2$

S42. Ans.(d)

Sol.

Required answer = $\frac{51+60+72}{3} = 61$

S43. Ans.(a)

Sol.

Required answer = $34:40 = 17:20$

S44. Ans.(a)

Sol.

Total guests in F = $\frac{72+60}{2} = 66$

Rooms in F = $80\% \text{ of } (40) = 32$

Required answer = 66, 32

S45. Ans.(c)

Sol.

$$\text{Required answer} = \frac{51}{60} \times 100 = 85\%$$

S46. Ans.(c)

Sol.

$$\text{Required answer} = \frac{56+64+48}{3} = 56$$

S47. Ans.(b)

Sol.

$$\text{Required answer} = \frac{1}{4} \times 64 + \frac{1}{2} \times 48 = 40$$

S48. Ans.(d)

Sol.

$$\text{Required answer} = 80 - \frac{100}{87.5} \times 56 = 16$$

S49. Ans.(a)

Sol.

$$\text{Required answer} = \frac{64}{80} \times 100 = 80\%$$

S50. Ans.(a)

Sol.

$$\text{Required answer} = 56:80:48:72 = 126:120 = 34:30 = 17:15$$

S51. Ans.(b)

Sol.

Information given in the Question:

Number of pencils = x

Number of pens = 3x

Average of pencils = 10

Concept/Formula Used in the Question:

$$\text{Average} = (\text{Sum of all values}) / (\text{Number of values})$$

Detailed Explanation:

Let the number of pencils = x

Then, number of pens = 3x

Number of erasers = 3x - 12

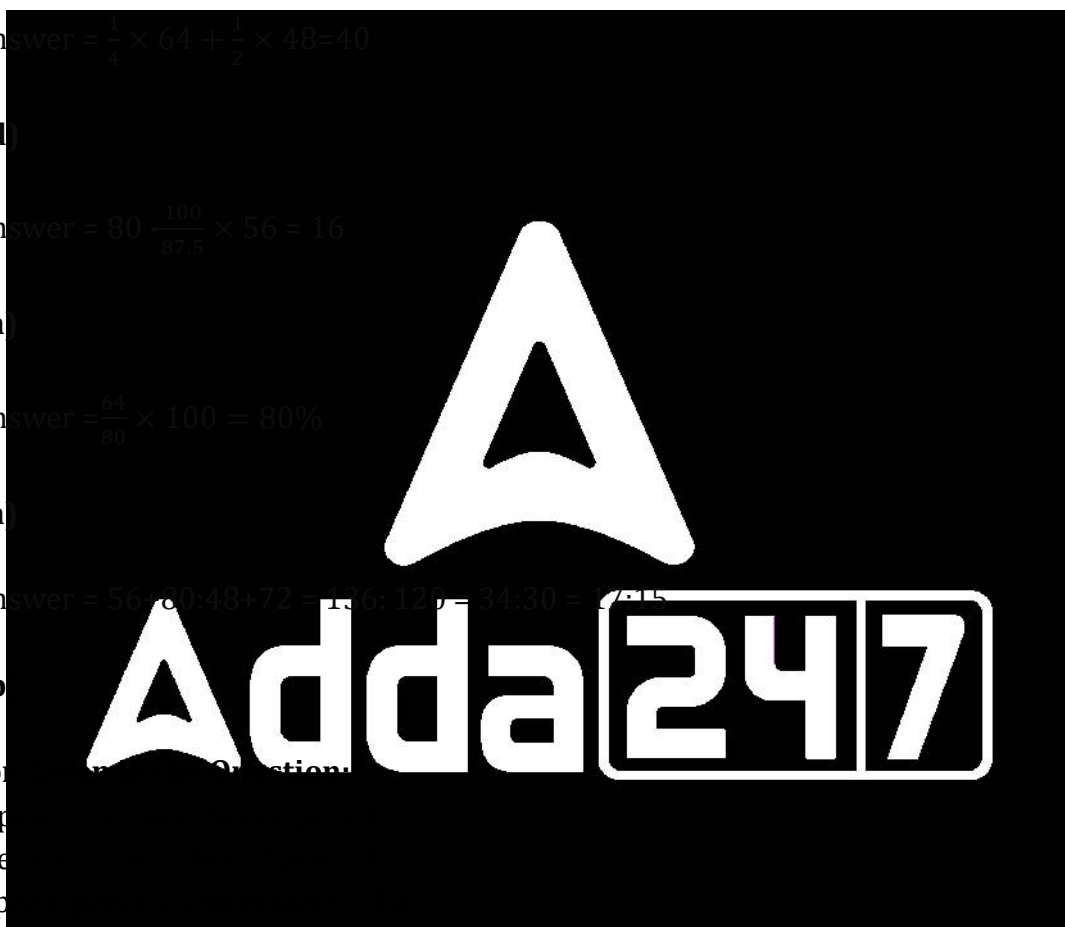
$$\text{Total} = x + 3x + (3x - 12) = 7x - 12$$

$$\text{Average} = (\text{Total}) / 3$$

According to question:

$$(7x - 12) / 3 = 10$$

$$7x - 12 = 30$$



$$7x = 42$$

$$x = 6$$

$$\text{So, number of pens} = 3x = 3 \times 6 = 18$$

S52. Ans.(b)

Sol.

Information Given in the Question:

Initial ratio of milk in jars A : B : C = 4 : 1 : 2

Total quantity of milk = 28 liters

4 liters of milk is added to jar B

Need to find the new ratio A : B : C

Detailed Ex

Initial ratio

So, 1 part =

Milk in:

$$\text{Jar A} = 4 \times 4$$

$$\text{Jar B} = 4 \times 1$$

$$\text{Jar C} = 4 \times 2$$

Now, 4 liters quantity in

New quantiti

$$\text{Jar A} = 16 \text{ lit}$$

$$\text{Jar B} = 8 \text{ lite}$$

$$\text{Jar C} = 8 \text{ lite}$$

New ratio =

$$= 2 : 1 : 1$$

S53. Ans.(a)

Sol.

Information

Equal amou

Scheme A: 8

Scheme B: 1

Total interest from both = Rs 4,400

Concept/Formula Used in the Question:

$$\text{Simple Interest (SI)} = (P \times R \times T) / 100$$

$$\text{Total SI} = \text{SI from Scheme A} + \text{SI from Scheme B}$$

Detailed Explanation:

Let the invested amount in each scheme = Rs x

Scheme A:

Rate = 8%, Time = 2 years

$$\text{SI} = (x \times 8 \times 2) / 100 = (16x) / 100$$

Scheme B:

Rate = 14%, Time = 2 years

$$SI = (x \times 14 \times 2) / 100 = (28x) / 100$$

Total SI:

$$(16x + 28x) / 100 = 4,400$$

$$\Rightarrow 44x / 100 = 4400$$

$$\Rightarrow x = (4400 \times 100) / 44$$

$$\Rightarrow x = 10000$$

So, amount invested in Scheme A = Rs 10,000

S54. Ans.(c)

Sol.

Information Given in the Question:

Total investment = Rs 10,000

Juli left after 8 months

Profit-sharing ratio = 3:2

Business ran for 12 months

Tanisha was the only partner

Concept/Formula Used:

Profit is shared in the ratio of

Let one invest for x months

Detailed Explanation:

Let Tanisha's investment = x

Then, Juli's investment = 10,000 - x

Tanisha worked for 12 months

Profit share of Tanisha = $\frac{12x}{12x + 8(10,000 - x)}$

Tanisha = $\frac{12x}{20x + 80,000}$

Juli = $\frac{8(10,000 - x)}{20x + 80,000}$

Given that the profit shares are equal:

$$x \times 12 = (50,000 - 8x) \times 8$$

$$12x = 40,000 - 64x$$

$$\Rightarrow 12x + 64x = 40,000$$

$$\Rightarrow 76x = 40,000$$

$$\Rightarrow x = 40000 / 76$$

So, Tanisha's investment = Rs 2,000

S55. Ans.(c)

Sol.

Information Given in the Question:

Time taken to cross platform = 21 seconds

Speed of train = 72 km/h = $72 \times (5/18) = 20$ m/s

Let the length of the train be = x meters

Length of platform = x + 60 meters

Concept/Formula Used in the Question:

Speed = Distance / Time

Detailed Explanation:

Convert speed:

$$72 \text{ km/h} = 72 \times \frac{5}{18} = 20 \text{ m/s}$$

$$\text{Total length to be covered} = x + (x + 60) = 2x + 60$$

ATQ,

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

$$20 = \frac{2x+60}{21}$$

$$420 = 2x + 60$$

$$2x = 360$$

$$x = 180$$

S56. Ans.(d)

Sol.

Information

Income ratio

Mahesh spe

20% on rent

25% of the m

10% of the m

Mahesh's fir

Detailed Ex

Let Mahesh'

Rent:

$$20\% \text{ of } 5x = \frac{20}{100} \times 5x = x$$

$$\text{Remaining after rent} = 5x - x = 4x$$

EMI:

$$25\% \text{ of } 4x = \frac{25}{100} \times 4x = x$$

$$\text{Remaining after EMI} = 4x - x = 3x$$

Food:

$$10\% \text{ of } 3x = \frac{10}{100} \times 3x = 0.3x$$

$$\text{Remaining after food} = 3x - 0.3x = 2.7x$$

$$\text{So, Savings} = 2.7x = \text{Rs. } 13,500$$

$$\Rightarrow x = \frac{13500}{2.7} = 5000$$

$$\text{Now, Hari's income} = 6x = 6 \times 5000 = \text{Rs. } 30,000$$

S57. Ans.(e)

Sol.

Information Given in the Question:

Present age of younger son = 23 years



Let present age of elder son = E years

Present age of father = E + 23 years (since sum of sons' ages = father's age)

Three years ago:

Elder son's age = E - 3

Father's age = (E + 23) - 3 = E + 20

At that time, elder son's age = $\frac{1}{2} \times$ father's age

Detailed Explanation:

Let present age of elder son = E years

Then, father's present age = E + 23

Three years ago:

Elder son's age = E - 3

Father's age = E + 20

According to question,

$$E - 3 = \frac{1}{2} \times (E + 20)$$

$$2E - 6 = E + 20$$

$$2E - E = 20 + 6$$

$$E = 26$$

So, elder son's present age = 26 years

Father's age = 26 + 23 = 49 years

Father's age = 49 years

S58. Ans. (a)

Sol.

Information:

Area of rectangle = 98 cm²

Breadth = $\frac{1}{2}$ of length

Need to find length + breadth

Concept/Formula Used in the Question:

Area of rectangle = Length $\times$ Breadth

Breadth = $\frac{1}{2}$ of length

Detailed Explanation:

Let the length = L cm

$$\text{Then, breadth} = \frac{1}{2} L \text{ cm}$$

$$\text{Area} = \text{Length} \times \text{Breadth}$$

$$98 = L \times \frac{1}{2} L$$

$$\Rightarrow 98 = \frac{L^2}{2}$$

$$196 = L^2$$

$$\Rightarrow L = \sqrt{196} = 14 \text{ cm}$$

$$\text{Now, breadth} = \frac{1}{2} \times 14 = 7 \text{ cm}$$

$$\text{Sum of length and breadth} = 14 + 7 = 21 \text{ cm}$$

S59. Ans.(e)

Sol.

Information Given in the Question:

A can do the work in 20 days

B can do the work in 30 days

A + B + C together can do the work in 10 days

Need to find: Days C alone would take

Concept/Formula Used in the Question:

Efficiency = Work / Time

Total work – (A's work + B's work) = C's work

Then, Days = Work / Efficiency

Detailed Ex

Let total wo

Individual e

A's 1-day wo

B's 1-day wo

A + B + C's 1

Step 3: Work

So, C's 1-day

Days C alone

S60. Ans.(b)

Sol.

Information

Marked Price

Discount = 20%

Profit = Rs 40

Need to find

Concept/Formula

Marked Price

Selling Price

Profit = SP -

Detailed Explanation:

Let the Cost Price (CP) = Rs x

Then, Marked Price (MP) = 1.5x

Discount = 20% → SP = 1.5x × 0.8 = 1.2x

Given: Profit = SP - CP = 1.2x - x = 0.2x = Rs 40

⇒ 0.2x = 40

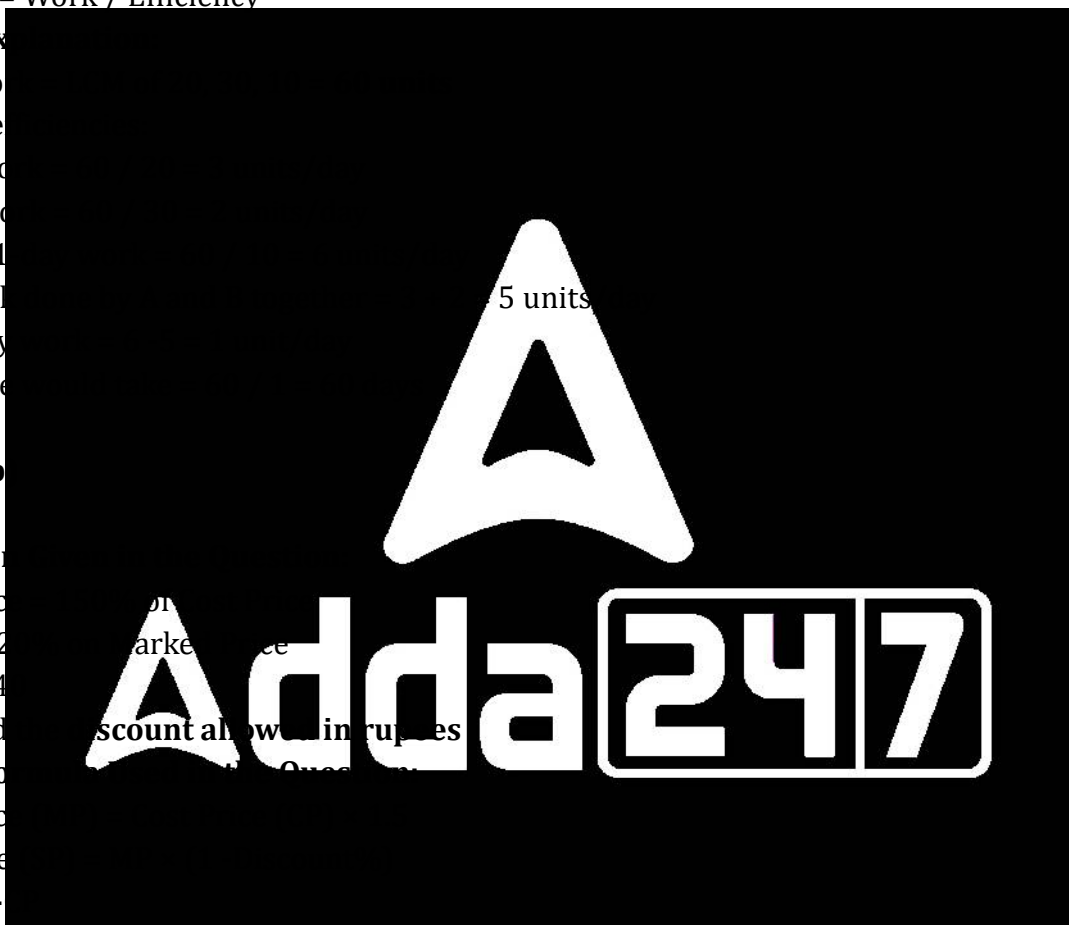
⇒ x = Rs 200 (Cost Price)

Now,

MP = 1.5 × 200 = Rs 300

SP = Rs 240

Discount allowed = MP - SP = 300 - 240 = Rs 60



S61. Ans.(d)

Sol.

The pattern of the series is-

$$12000 \div 2 = 6000$$

$$6000 \div 2 = 3000$$

$$3000 \div 2 = 1500$$

$$1500 \div 2 = 750$$

$$750 \div 2 = 375$$

S62. Ans.(e)

Sol.

The pattern of the series is-

$$1.5 \times 4 + 1 = 7$$

$$7 \times 4 + 1 = 29$$

$$29 \times 4 + 1 = 117$$

$$117 \times 4 + 1 = 469$$

$$469 \times 4 + 1 = 1877$$

$$1877 \times 4 + 1 = 7509$$

S63. Ans.(d)

Sol. The pattern of the series –

$$160 + 13 = 173$$

$$173 + 17 = 190$$

$$190 + 19 = 209$$

$$209 + 23 = 232$$

$$232 + 29 = 261$$

$$261 + 31 = 292$$

S64. Ans.(e)

Sol.

The pattern of the series-

$$285 - (4) = 281$$

$$281 - (16) = 265$$

$$265 - (36) = 229$$

$$229 - (64) = 165$$

$$165 - (100) = 65$$

S65. Ans.(c)

Sol. The pattern of the series is-

$$12 + 1331 = 1343$$

$$1343 + 1000 = 2343$$

$$2343 + 729 = 3072$$



$$3072 + 512 = 3584$$

$$3584 + 343 = 3927$$

$$3927 + 216 = 4143$$

S66. Ans.(e)

Sol.

$$\left[\frac{66}{100} \times 600\right] \% \text{ of } 25 = ? \% \text{ of } 50$$

$$396 \times \frac{1}{4} = \frac{?}{100} \times 50$$

$$? = 99 \times 2$$

$$? = 198$$

S67. Ans.(a)

$$\text{Sol. } \frac{?}{16} = \frac{7}{?} \times \frac{1}{343}$$

$$\frac{?}{16} = \frac{1}{?}$$

$$?^2 = 16$$

$$? = 4$$

S68. Ans.(d)

$$\text{Sol. } 26 - 22$$

$$? = 2$$

S69. Ans.(a)

Sol.

$$? = 22 \times 25 + 400$$

$$? = 950$$

S70. Ans.(e)

$$\text{Sol. } 8 \times ? = \frac{220}{100} \times 250 + \frac{60}{100} \times 550$$

$$8 \times ? = 550 + 330$$

$$? = 110$$

S71. Ans.(a)

$$\text{Sol. } \frac{25}{100} \times 320 + \frac{40}{100} \times 250 + \frac{1}{3} \times 30 = ?$$

$$80 + 100 + 10 = ?$$

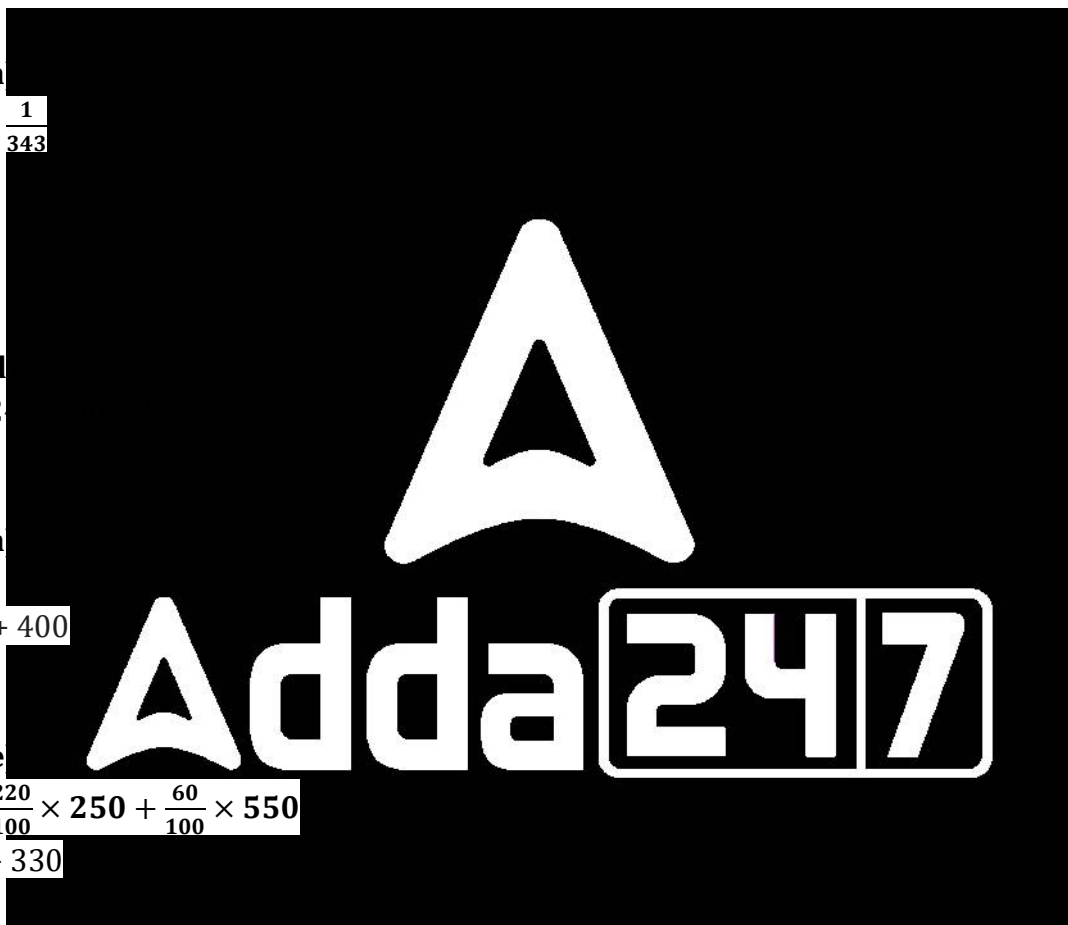
$$190 = ?$$

S72. Ans.(d)

Sol.

$$16 \times 16 \div 64 = ?$$

$$4 = ?$$



S73. Ans.(e)

Sol. $520 + 480 - 200 = ? \times 8$

$1000 - 200 = ? \times 8$

$800 = ? \times 8$

$? = 100$

S74. Ans.(d)

Sol. $[2 \times \{42 + 10\}] = ?$

$? = 2 \times 52$

$? = 104$

S75. Ans.(b)

Sol. $600 + 7$

$1320 - 25 =$

$1295 = ?$

S76. Ans.(a)

Sol. $5000 - ?$

$?^2 = 5000 - ?$

$?^2 = 2500$

$? = 50$

S77. Ans.(b)

Sol. $35 + 14$

$49 - 24 = ?^2$

$25 = ?^2$

$? = 5$

S78. Ans.(d)

Sol. $? = 6000$

$? = 6000 - 4$

$? = 1200$

S79. Ans.(e)

Sol. $(3+4-2) + \left(\frac{2+2-1}{4}\right) = ?$

$5\frac{3}{4} = ?$

S80. Ans.(d)

Sol. $\frac{25}{69} \times \frac{23}{5} \times \frac{1}{25} = \frac{?}{15}$

$? = 1$

