Instructions
For the following questions answer them individually

Question 86

What is the remainder of 54547 divided by 9?

A 0

B 6

C 7

D 4

Answer: C

Explanation:
Sum of digits of 54547 = 5+4+5+4+7=25

Now, when 25 is divided by 9, => $25 = 9 \times 2 + 7$

Thus, remainder = **7**

=> Ans - (C)

Question 87

The Loss incurred by selling an article at Rs.335 is 60% of the gain attained by selling the same article at Rs.671. Find the cost price of the article. (in Rs)

A 461

B 458

C 459

D 460

Answer: A

Explanation:
Let cost price of the article = Rs. x

Loss = Rs. $(x - 335)$

Profit = Rs. $(671 - x)$

According to ques, => $x - 335 = \frac{60}{100}(671 - x)$

=> $5x - 1675 = 2013 - 3x$

=> $5x + 3x = 2013 + 1675 = 3688$

=> $x = \frac{3688}{8} = 461$

$\therefore$ Cost price = **Rs. 461**

=> Ans - (A)

Question 88

The amount doubles itself under Compound interest in 7 years. In how many years will it become 128 times of it?

A 55

B 51

C 49

D 53

Answer: C

Explanation:
The amount gets doubled in 7 years.

In case of compound interest, the amount will become 2^n times in $7n$ years

=> Final amount = $128 = (2)^7$

Thus, after $7 \times 7 = 49$ years, amount will become 128 times.

=> Ans - (C)

Question 89

Under 11% interest rate per interest rate of Rs. 8,000 is invested. The amount is then taken over 5 years and half of it is invested in the stock market. Find the outstanding balance. (In Rupees)

A 6,250

B 6,200

C 6,300

D 6,350

Answer: B

Explanation:
Principal sum = Rs. 8,000

Rate of interest = 11% and time period = 5 years

Simple interest = $\frac{P\times R\times T}{100}$

= $\frac{8000\times 11\times 5}{100} = Rs.\ 4400$

Thus, total amount after 5 years = $Rs.\ (8000 + 4400) = Rs.\ 12,400$

∴ Remaining amount after half of the total amount is been invested in Stock market = $\frac{12400}{2} = Rs.\ 6200$

=> Ans - (B)

Question 90

Guidelines:
The data below is shown in the years (2001-2005) for data generation (thousands of) data production of three different companies X, Y and Z).

What is the difference between the production of Z company in 2001 and the production of Y in 2002? (In thousands)
Latek

A 3

B 4

C 6

D 5

Answer: A

Question 91

Narrow:
Latek

A 150

B 125

C 175

D 100

Answer: A

Question 92

In the English section of a customer service, 217 male and 217 female workers work. The average productivity of all employees is 77 calls per day. If an average male employee responds to 77 calls, how many will a female employee answer on average?

A 77

B 76

C 78

D 79

Answer: A

Explanation:
Since, there are an equal number of male and female employees in the company, and also the average productivity is 77 calls per day which is equal to the number of calls attended by the males.

Thus, number of calls attended per day by a female employee will also equal to = **77**

=> Ans - (A)

Question 93

Anita performs a particular chase at the speed of speed (9/10) at regular speed, which he takes 25 minutes longer than usual time. Find the time you usually take. (In minutes)

A 225

B 224

C 222

D 226

Answer: A

Explanation:
Let usual speed = 10 m/min and usual time taken = t min

=> New speed = 9 m/min and new time = $(t+25)$ min

Also, speed is inversely proportional to time.

=> $\frac{10}{9} = \frac{t+25}{t}$

=> $10t = 9t + 225$

=> $10t - 9t = t = 225$

$\therefore$ Usual time taken = **225 minutes**

=> Ans - (A)

Question 94

The length of a floor is 125% of its width. Floor area of 180 m 2 , the length and width of the floor is the sum of? (In meters)

A 29

B 27

C 25

D 23

Answer: B

Explanation:
Let width of floor = x m

=> Length = $\frac{125}{100} \times x = 1.25x$ m

Area = $x \times 1.25x = 180$

=> $x^2 = \frac{180}{1.25} = 144$

=> $x = \sqrt{144} = 12$

$\therefore$ Sum of length and width = $x + 1.25x = 2.25x$

= $2.25 \times 12 = 27$

=> Ans - (B)

Question 95

Narrow:
Latek

A 29

B 35

C 34

D 28

Answer: C

Question 96

A bulb manufacturer found that 19% of the bulbs were repaired in the overall production. If the number of unbleached bulbs is 2025, find the number of defective bulbs.

A 475

B 476

C 478

D 477

Answer: A

Explanation:
% of non defective bulbs = $100 - 19 = 81\% \equiv 2025$

=> Number of defective products = $19\% \equiv {}^{2025}_{81} \times 19$

= $25 \times 19 = 475$

=> Ans - (A)

Question 97

If the cube with a 45√3 cm diagonal is molded, the side of the cube and the length of the cuboid is the same size. If the width of the cuboid is 22.5 cm, what is its height? (In centimeters)

A 88

B 94

C 90

D 92

Answer: C

Explanation:

Let side of cube be a cm

=> Diagonal = $\sqrt{a^2 + a^2 + a^2} = 45\sqrt{3}$

=> $\sqrt{3}a = 45\sqrt{3}$

=> $a = 45$ cm

Let height of cuboid = h cm, length, $l = 45$ cm and breadth, $b = 22.5$ cm

According to ques, Volume of cuboid = Volume of cube

=> $lbh = a^3$

=> $45 \times 22.5 \times h = (45)^3$

=> $h = \frac{45 \times 45}{22.5} = 90$ cm

=> Ans - (C)

Question 98

Martin donated 13% of his salary to the company for the blind, 12% to the overseas home, 14% to the company for disabilities, and 16% for medical aid companies. The remaining salary is Rs. 19,125 is deposited in the bank for monthly expenses. If so, find out the amount he donated to the company for the blind?

A 5,535

B 5,545

C 5,555

D 5,525

Answer: D

Explanation:
If total salary is 100%, then % salary remaining after the donations = $100 - (13 + 12 + 14 + 16) = 45\%$

According to ques, $45\% \equiv Rs.\ 19,125$

Thus, amount donated to company for the blind = $13\% \equiv \frac{19125}{45} \times 13$

= $425 \times 13 = Rs.\ 5,525$

=> Ans - (D)

Question 99

The sum of three numbers is 225. If the ratio for the first and second number is 2: 3, the ratio of the second and third number is 3: 4, what is the second number?

A 74

B 72

C 75

D 73

Answer: C

Explanation:
Let the three numbers respectively be $2x, 3x$ and $4x$

Sum = $2x + 3x + 4x = 9x = 225$

=> $x = \frac{225}{9} = 25$

$\therefore$ Second number = $3 \times 25 = 75$

=> Ans - (C)

Question 100

Ankit, Babu, Christo, and David are distributed amount at a 5: 4: 3: 2 ratio. Christo receives Rs. 115 more than David. What is the amount received by Babu? (In Rupees)

A 440

B 460

C 430

D 450

Answer: B

Explanation:
Let amount received by Ankit, Babu, Christo, and David respectively be $5x, 4x, 3x$ and $2x$

According to ques, => $3x - 2x = x = 115$

$\therefore$ Amount receive by Babu = $4 \times 115 = Rs.\ 460$

=> Ans - (B)

Question 101

A man completes a journey within 7.5 hours. He travels first half of the journey at the rate of 20 kmph and second half at the rate of 30 kmph. What is the total distance to travel? (Km)

A 170

B 175

C 165

D 180

Answer: D

Explanation:
Let total distance = $2d$ km

Using, time = distance/speed

=> $\frac{d}{20} + \frac{d}{30} = 7.5$

=> $\frac{30d+20d}{600} = 7.5$

=> $5d = 7.5 \times 60$

=> $d = 7.5 \times 12 = 90$

$\therefore$ Total distance of the entire journey = $2 \times 90 = 180$ km

=> Ans - (D)

Question 102

A person can board a bicycle for 20 km at the hotel. He travels at speeds 7.5 minutes late. If he had traveled at speeds of 24 km at 7.5 minutes earlier. Find the distance between the hotel and the college. (Km)

A 32

B 30

C 36

D 34

Answer: B

Explanation:
Let ideal time taken = t hours

Also, speed is inversely proportional to time.

=> $\frac{20}{24} = \frac{t-\frac{7.5}{60}}{t+\frac{7.5}{60}}$

=> $5t + \frac{7.5}{12} = 6t - \frac{7.5}{10}$

=> $6t - 5t = \frac{7.5}{12} + \frac{7.5}{10}$

=> $t = \frac{37.5+45}{60} = \frac{82.5}{60}$

$\therefore$ Distance = speed $\times$ time

= $20 \times \left(\frac{82.5}{60} + \frac{7.5}{60}\right)$

= $\frac{90}{3} = 30$ km

=> Ans - (B)

Question 103

Guidelines:
The data below is shown in the years (2001-2005) of the paper production (thousandth) of three different companies X, Y and Z.

How many percent of X's production has increased since 2002 to 2005? (Complete to 2 decimal places in%)
Fig

A 4.30

B 4.23

C 4.20

D 4.27

Answer: B

Question 104

A shopkeeper sells a product at the rate of Rs.1596 and earns a profit of 14%. Find the amount which is equal to half of the cost price of the product.

A 650

B 800

C 700

D 750

Answer: C

Explanation:

Selling price = Rs. 1596 and profit % = 14%

=> Cost price = $\frac{1596}{(100+14)} \times 100$

= $14 \times 100 = Rs. 1400$

$\therefore$ Amount which is equal to half of the cost price of the product = $\frac{1400}{2} = Rs. 700$

=> Ans - (C)

Question 105

Guidelines:
The data below is shown in the years (2001-2005) of the paper production (thousandth) of three different companies X, Y and Z.

Which company has a minimum production of five years?
Fig

A X

B Y

C Z

D All of these

Answer: A

Question 106

The number of employees on a farm increased by 15% and the wage for one person has decreased by 15%. What would be the value of x if it reduced x% of the total wage?

A 2.25

B 2.24

C 2.26

D 2.27

Answer: A

Explanation:
Let number of employees in the firm initially = 100 and wages per head = Rs. 100

=> Total wages = $100 \times 100 = Rs. 10,000$

Number of employees after increase of 15% = $100 + \frac{15}{100} \times 100 = 115$

Similarly, new wages per head = $Rs. 85$

=> New wages = $85 \times 115 = Rs. 9775$

$\therefore$ Decrease in total wages = $\frac{10000-9775}{10000} \times 100 = 2.25\%$

=> Ans - (A)

Question 107

In the 175-liter mixture, the milk and water ratio is 3: 4. If this ratio is 3: 5, how much water should be included. (In liters)

A 25

B 27

C 24

D 26

Answer: A

Explanation:

Quantity of milk in 175 litres mixture = $\frac{3}{(3+4)} \times 175 = 75$ litres

=> Quantity of water = $175 - 75 = 100$ litres

Let x litres of water is to be added.

=> $\frac{75}{102+x} = \frac{3}{5}$

=> $375 = 300 + 3x$

=> $3x = 375 - 300 = 75$

=> $x = \frac{75}{3} = 25$

$\therefore$ Quantity of water to be further added is **25 litres.**

=> Ans - (A)

Question 108

Narrow:
Latek

A 134

B 124

C 54

D 128

Answer: A

Question 109

Find the value of X:
Latek

A 37

B 40

C 29

D 38

Answer: B

Question 110

Which number will be divisible by 24?

A 109464

B 109644

C 190446

D 446190

Answer: A

Explanation:
Numbers which are divisible by 24, must first be divisible by 3 and also by 8. Checking divisibility by 8.

109644, 190446 and 446190 are not divisible by 8, so only first number is divisible by 8 and 3.

Thus, **109464** is divisible by 24.

=> Ans - (A)

Question 111

The average weight of 89 notebooks in a box is 8.9 kg. When a new notebook is added, its average is 9 kilograms. Find the weight of the new notebook. (In kg)

A 19.9

B 20.9

C 17.9

D 18.9

Answer: C

Explanation:
Average weight of 89 Notebooks in a box = 8.9 kg

=> Total weight = $89 \times 8.9 = 792.1$ kg

Let weight of new book = x kg

=> New average = $\frac{792.1+x}{90} = 9$

=> $792.1 + x = 90 \times 9 = 810$

=> $x = 810 - 792.1 = 17.9$ kg

=> Ans - (C)

Question 112

There are three types of old coins in a box at 3: 5: 7. The value of old currencies is 1 rupee, 5 rupees and 10 rupees respectively. The total value of the coins in the box is Rs. If 2450, find the number of coins worth 10 rupees.

A 181

B 175

C 184

D 178

Answer: B

Explanation:
Let number of 1 rupee, 5 rupees and 10 rupees respectively be $3x, 5x$ and $7x$

Total amount = $(1 \times 3x) + (5 \times 5x) + (10 \times 7x) = 2450$

=> $3x + 25x + 70x = 2450$

=> $x = \frac{2450}{98} = 25$

$\therefore$ Number of 10 rupees coins = $7 \times 25 = 175$

=> Ans - (B)

Question 113

Anil obtained 79 marks out of 120 in French, 95 marks out of 130 in English, 31 out of 70 in Spanish and 35 out of 80 in Japanese. What is the overall percentage obtained by him? (in %)

A 65

B 50

C 55

D 60

Answer: D

Explanation:
Marks obtained = 79 + 95 + 31 + 35 = 240

Maximum marks = 120 + 130 + 70 + 80 = 400

$\therefore$ Overall percentage obtained by him = $\frac{240}{400} \times 100 = 60\%$

=> Ans - (D)

Question 114

There are 10 bangles in a gift box, the first 4 bangles weighing 72 grams. The average weight of the remaining 6 bangles is 73 grams. Find the average weight of total bangles. (G)

A 68.6

B 69.6

C 72.6

D 71.6

Answer: C

Explanation:
Average weight of first 4 bangles = 72 grams

=> Weight of first 4 bangles = $72 \times 4 = 288$ grams

Similarly, weight of remaining 6 bangles = $73 \times 6 = 438$ grams

$\therefore$ Average weight of the total bangles = $\frac{288+438}{10} = 72.6$ grams

=> Ans - (C)

Question 115

Find the fraction of X, if X = 0.128888.

A 126/990

B 116/900

C 136/900

D 116/990

Answer: B

Explanation:
Given : $x = 0.128888$

=> $100x = 12.8888$ ----------(i)

=> $1000x = 128.8888.....$ ----------(ii)

Subtracting equation (i) from (ii), we get :

=> $900x = 128.8888 - 12.8888 = 116$

=> $x = \frac{116}{900}$

=> Ans - (B)

Question 116

The total area of the square shaped glass chain placed on a table is 961cm2 . Find the length of the table, if the width between the tip of the table and the width of the table is 11 cm. (In centimeters)

A 53

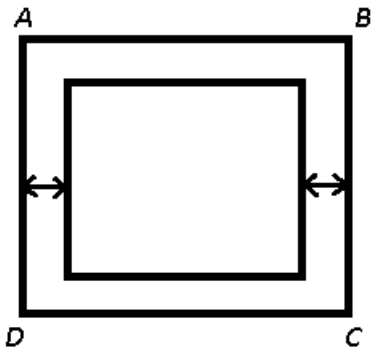
B 51

C 47

D 49

Answer: A

Explanation:



ABCD is the table and the glass piece is placed inside.

Side of glass = $\sqrt{961} = 31$ cm

Width between glass and table = 11 cm

=> Side of table = $11 + 31 + 11 = 53$ cm

=> Ans - (A)

Question 117

After subsequent discounts of 10% and 20%, the sale price of a product is Rs. 1,836. If its modest price is 50% of the price at which the subject is priced, what is its suppression price? (In Rupees)

A 1,285

B 1,295

C 1,275

D 1,305

Answer: C

Explanation:
Let modest price = Rs. $100x$

After 1st discount of 10%, selling price = $100x - (\frac{10}{100} \times 100x) = Rs.\ 90x$

Similarly, after 2nd discount of 20%, selling price = $90x - (\frac{20}{100} \times 90x) = Rs.\ 72x$

According to ques, => $72x = 1836$

=> $x = \frac{1836}{72} = 25.5$

$\therefore$ Suppression price = $\frac{50}{100} \times 100 \times 25.5 = Rs.\ 1275$

=> Ans - (C)

Question 118

The difference between the compound interest and the interest rate for a certain amount invested in 2 years is Rs. Is 198. If the interest rate is 6% per annum, find out the amount invested.

A 57,500

B 50,000

C 52,500

D 55,000

Answer: D

Explanation:
Rate of interest = 6% and time period = 2 years

Let principal sum = Rs. P

Also, difference between compound interest and simple interest for 2 years = $P(\frac{r}{100})^2$

=> $P(\frac{6}{100})^2 = 198$

=> $P = 198 \times \frac{10000}{36}$

=> $P = Rs.\ 55,000$

=> Ans - (D)

Question 119

A 145-meter long train passes at 54 kilometers and crosses a bridge in 29 seconds. If so, find the length of the bridge. (In meters)

A 310

B 330

C 270

D 290

Answer: D

Explanation:

Speed of train = 54 kmph = $54 \times \frac{5}{18} = 15$ m/s

Let length of bridge = x m

Using, speed = distance/time

=> $15 = \frac{145+x}{29}$

=> $145 + x = 29 \times 15 = 435$

=> $x = 435 - 145 = 290$ m

=> Ans - (D)

Question 120

The maximum number of two numbers is 51 (mc) and its maximum public factor is 17 (m). If a number 17 is given, find the second number.

A 867

B 17

C 34

D 51

Answer: D