

Instructions

For the following questions answer them individually

Question 1

A 270 meters long train running at the speed of 120 kmph crosses another train running in opposite direction at the speed of 80 kmph in 9 seconds. What is the length of the other train ?

- A** 240 meters
- B** 320 meters
- C** 260 meters
- D** 230 meters

Answer: D

Explanation:

Relative speed = (120 + 80) kmph (or) 200 kmph, Relative time = 9 seconds, Relative distance = (270 + x) meters

Let x be the length of other train.

We know that,

Distance = speed x time

$$270 + x = 200 \times \frac{5}{18} \times 9$$

$$270 + x = 100 \times 5$$

$$x = 500 - 270 \text{ (or) } 230 \text{ meters.}$$

Hence, option D is the correct answer.

Question 2

Raviraj invested an amount of Rs.10,000 at compound interest rate of 10 p.e.p.a. For a period of three years. How much amount will Raviraj get after three years ?

- A** Rs.13,210
- B** Rs.13,310
- C** Rs.12,100
- D** Rs.11,000

Answer: B

Explanation:

Principal sum = Rs. 10,000

Rate of interest = 10% and time period = 3 years

$$\text{Amount after compound interest} = P\left(1 + \frac{r}{100}\right)^T$$

$$= 10,000\left(1 + \frac{10}{100}\right)^3$$

$$= 10,000 \times \left(\frac{11}{10}\right)^3$$

$$= 10 \times 1331 = \text{Rs. } 13,310$$

=> Ans - (A)

Question 3

Twice the square of a number is the cube of 18. The number is

- A** 54
- B** 108
- C** 162
- D** 324

Answer: A

Explanation:

Let the number be x

According to ques,

$$\Rightarrow 2 \times (x)^2 = (18)^3$$

$$\Rightarrow (x)^2 = (18)^2 \times \frac{18}{2}$$

$$\Rightarrow x = \sqrt{(18)^2 \times 9}$$

$$\Rightarrow x = 18 \times 3 = 54$$

$$\Rightarrow \text{Ans} - (A)$$

Question 4

The average salary of a group of 27 is Rs. 3,700. If the salary of one more person is added, the average is increased to Rs.3750. What is the salary of the new person ?

- A** Rs.5010
- B** Rs.5200
- C** Rs.5100
- D** Rs.5000

Answer: C

Explanation:

Average salary of 27 people = Rs. 3700

$$\Rightarrow \text{Total salary of 27 people} = 3700 \times 27 = \text{Rs. } 99,900$$

Let the salary of new person = Rs. x

According to ques,

$$\Rightarrow \frac{99,900+x}{28} = 3750$$

$$\Rightarrow 99,900 + x = 3750 \times 28$$

$$\Rightarrow x = 1,05,000 - 99,900 = 5100$$

$\therefore$ Salary of the new person = **Rs. 5100**

$$\Rightarrow \text{Ans} - (C)$$

Question 5

What should come in place of both the question marks (?) in the following equation.

$$\frac{16}{?} = \frac{?}{42.25}$$

- A 2.6
- B 260
- C .26
- D 26

Answer: D

Explanation:

$$\frac{16}{x} = 42.25$$

$$\Rightarrow x^2 = \frac{16 \times 4225}{100}$$

$$\Rightarrow x = \frac{4 \times 65}{10}$$

$$\therefore x = 26$$

Question 6

An amount of money is to be distributed among P, Q and R in the ratio of 5:9:17 respectively. If the total of the shares of P and Q is Rs.7,000. What is R's share in it

- A Rs.4,500
- B Rs.2,500
- C Rs.8,500
- D Rs.6,000

Answer: C

Explanation:

Let the amount distributed among P, Q and R be 5x, 9x and 17x respectively

Total shares of P and Q is 7,000 (given) i.e

$$\Rightarrow 5x + 9x = 7,000$$

$$\Rightarrow 14x = 7,000 \text{ (or) } x = 500$$

$$\therefore \text{R's share} = 17(500) = 8,500$$

Hence, option C is the correct answer.

Question 7

One-fourth of three-fifth of a number is 42. What is 40% of that number ?

- A 140
- B 116
- C 128
- D 112

Answer: D

Explanation:

Let the number be x

According to ques,

$$\Rightarrow \frac{1}{4} \times \frac{3}{5} \times (x) = 42$$

$$\Rightarrow x = 42 \times \frac{20}{3}$$

$$\Rightarrow x = 280$$

$$\therefore 40\% \text{ of the number} = \frac{40}{100} \times 280 = 112$$

$\Rightarrow$ Ans - (D)

Question 8

By how much is 10% of 24.2 more than 10% of 24.02 ?

A 1.8

B 0.018

C 0.18

D 18

Answer: B

Explanation:

To find : 10% of 24.2 – 10% of 24.02

$$\Rightarrow \left(\frac{10}{100} \times 24.2 \right) - \left(\frac{10}{100} \times 24.02 \right)$$

$$\Rightarrow 2.42 - 2.402 = 0.018$$

$\Rightarrow$ Ans - (B)

Question 9

Ramesh bought a calculator with 20% discount on the tag price. He obtained 10% profit by selling it for Rs.440. What was the tag price ?

A Rs.500

B Rs.400

C Rs.480

D Rs.360

Answer: A

Explanation:

Let tag price = Rs. $100x$

Discount % = 20%

$$\Rightarrow \text{Calculator's selling price} = \text{Cost price for Ramesh} = 100x - \left(\frac{20}{100} \times 100x \right)$$

$$= 100x - 20x = \text{Rs. } 80x$$

$$\text{Profit} = \frac{10}{100} \times 80x = \text{Rs. } 8x$$

Also, selling price = $(80x + 8x) = 440$

$$\Rightarrow x = \frac{440}{88} = 5$$

$\therefore$ Tag price = $100 \times 5 = \text{Rs. } 500$

$\Rightarrow$ Ans - (A)

Question 10

The sum of two numbers is 22 and their difference is 14. Find the product of numbers.

A 72

B 82

C 62

D 27

Answer: A

Explanation:

Let, the two numbers be x and y

Given, sum of two numbers $(x + y) = 22$ (1)

Difference of two numbers $(x - y) = 14$ (2)

By adding the above two equations we get,

$$2x = 36 \text{ (or) } x = 18$$

By subtracting the above two equations we get,

$$2y = 8 \text{ (or) } y = 4$$

Product of two numbers $(x \times y) = 18 \times 4 = 72$

Hence, option A is the correct answer.

Question 11

If $m = 9$ and $n = \frac{1}{3}m$, then $\sqrt{(m)^2 - (n)^2} = ?$

A $2\sqrt{2}$

B $6\sqrt{2}$

C $4\sqrt{2}$

D $5\sqrt{2}$

Answer: B

Explanation:

Given : $m = 9$ and $n = \frac{1}{3}m$

$$\Rightarrow n = \frac{1}{3} \times 9 = 3$$

To find : $\sqrt{(m)^2 - (n)^2}$

$$= \sqrt{(9)^2 - (3)^2}$$

$$= \sqrt{81 - 9} = \sqrt{72} = 6\sqrt{2}$$

=> Ans - (B)

Question 12

The ratio between the ages of x and y at present is 3:4. Five years hence, the ratio of their ages will be 4:5; what is the present age of y in years ?

A 15

B 20

C 25

D 30

Answer: B

Explanation:

Let the present ages of x and y be 3a, 4a respectively

After 5 years, their ages will be 3a+5 and 4a+5

$$\frac{3a+5}{4a+5} = \frac{4}{5}$$

$$\Rightarrow 5(3a+5) = 4(4a+5)$$

$$\Rightarrow 15a+25 = 16a+20$$

$$\Rightarrow a=5$$

Present age of x = 3*5=15 years

Present age of y = 4*5=20 years

Question 13

What would come in place of (\$) mark in the following equation ?

$$* 2 \$ 20 \div 156 = 145$$

A 6

B 2

C 4

D 0

Answer: A

Question 14

$$2^{\frac{1}{5}} x^2 = 2750, \text{ find the value of } x ?$$

A 25

B $25\sqrt{3}$

C $25\sqrt{2}$

D 20

Answer: C

Explanation:

$$25^{\frac{1}{2}} x^2 = 2750$$

$$\Rightarrow \frac{11}{5} x^2 = 2750$$

$$\Rightarrow x^2 = \frac{2750 \times 5}{11}$$

$$\Rightarrow x^2 = 1250$$

$$\Rightarrow x = \sqrt{1250} = \sqrt{625 \times 2}$$

$$\Rightarrow x = 25\sqrt{2}$$

Question 15

$$\frac{75 \times 75 - 26 \times 26}{101} = ?$$

A 59**B** 39**C** 29**D** 49**Answer:** D**Explanation:**

$$\frac{75 \times 75 - 26 \times 26}{101} = \frac{75^2 - 26^2}{101}$$

$$\Rightarrow \frac{(75+26)(75-26)}{101} \quad (\because a^2 - b^2 = (a+b)(a-b))$$

$$= \frac{101 \times 49}{101} = 49$$

Question 16

$\angle ABC$ is an isosceles triangle and $AB = AC = 2a$ unit $BC = a$ unit, Draw $AD \perp BC$, and find the length of AD

A $\sqrt{15}$ a unit**B** $\frac{\sqrt{15}}{2}$ a unit**C** $\sqrt{17}$ a unit**D** $\frac{\sqrt{17}}{2}$ a unit**Answer:** B**Explanation:**

Given that $AB = BC = 2a$ units and $BC = a$ units

$AD \perp BC \Rightarrow$ 'D' is midpoint of BC

$$BD = DC = \frac{a}{2}$$

Here $\triangle ABD$ is a right angled triangle where AB is hypotenuse

$$AB^2 = BD^2 + AD^2$$

$$\begin{aligned}
 \Rightarrow AD^2 &= AB^2 - BD^2 \\
 \Rightarrow AD &= \sqrt{2a^2 - \frac{a^2}{2}} \\
 &= \sqrt{4a^2 - \frac{a^2}{4}} \\
 &= \sqrt{\frac{15a^2}{4}} = \frac{\sqrt{15}a}{2} \text{ units}
 \end{aligned}$$

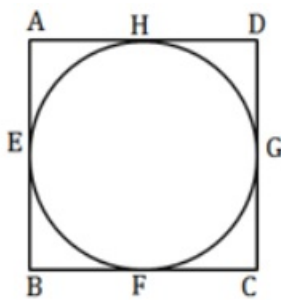
Question 17

All sides of a quadrilateral ABCD touch a circle. If AB = 6 cm. BC = 7.5 cm. CD = 3 cm, then DA is

- A 3.5 cm
- B 4.5 cm
- C 2.5 cm
- D 1.5 cm

Answer: D

Explanation:



Given : AB = 6 cm. BC = 7.5 cm. CD = 3 cm

To find : DA = ?

Solution : Tangents from the same point to a circle are equal in length.

$$\Rightarrow AE = AH, BE = BF, CG = CF \text{ and } DG = DH$$

Adding above equations, we get :

$$\Rightarrow (AE + BE) + (CG + DG) = (BF + CF) + (AH + DH)$$

$$\Rightarrow AB + CD = BC + DA$$

$$\Rightarrow 6 + 3 = 7.5 + DA$$

$$\Rightarrow DA = 9 - 7.5 = 1.5 \text{ cm}$$

$\Rightarrow$ Ans - (D)

Question 18

In a right angled triangle, the product of two sides is equal to half of the square of the third side i.e., hypotenuse. One of the acute angles must be

- A 60°
- B 30°
- C 45°

D 15°

Answer: C

Explanation:

Let the sides of the triangle ABC(right angled at B) be 'a','b','c' and c is hypotenuse

$$\text{Given that } a \times b = \frac{c^2}{2} \Rightarrow c^2 = 2ab$$

$$\text{We know that } c^2 = a^2 + b^2$$

Substituting c^2 value in above equation

$$2ab = a^2 + b^2$$

$$\Rightarrow a^2 - 2ab + b^2 = 0$$

$$\Rightarrow (a - b)^2 = 0$$

$$\Rightarrow a = b$$

In a triangle, if two sides are equal then the opposite angles must be equal

$$\text{We know that } \angle A + \angle B + \angle C = 180^\circ$$

$$\text{Here } \angle A = \angle C$$

$$90^\circ + 2\angle A = 180^\circ$$

$$\therefore \angle A = \angle C = 45^\circ$$

Question 19

If two concentric circles are of radii 5 cm and 3 cm, then the length of the chord of the larger circle which touches the smaller circle is

A 6 cm

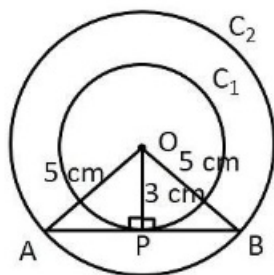
B 7 cm

C 10 cm

D 8 cm

Answer: D

Explanation:



Given : C_1 and C_2 be the two concentric circles having radius $r_1 = 3$ cm and $r_2 = 5$ cm respectively.

To find : $AB = ?$

Solution : AB is the the tangent to the circle C_1 , hence $\angle OPB = 90^\circ$

Also, the perpendicular from the centre of a circle to a chord bisects the chord.

Thus, in $\triangle OPB$,

$$\Rightarrow (PB)^2 = (OB)^2 - (OP)^2$$

$$\Rightarrow (PB)^2 = (5)^2 - (3)^2$$

$$\Rightarrow (PB)^2 = 25 - 9 = 16$$

$$\Rightarrow PB = \sqrt{16} = 4 \text{ cm}$$

$$\therefore AB = 2 \times 4 = 8 \text{ cm}$$

$\Rightarrow$ Ans - (D)

Question 20

Inside a square ABCD, $\triangle BEC$ is an equilateral triangle. If CE and BD intersect at O, then $\angle BOC$ is equal to

A 60°

B 75°

C 90°

D 120°

Answer: B

Explanation:

In square ABCD, $\triangle BEC$ is an equilateral triangle

Each angle of an equilateral triangle is 60°

$$\Rightarrow \angle OCB = 60^\circ$$

$$\angle DBC = \frac{90^\circ}{2} = 45^\circ \quad (\because BD \text{ is diagonal of } ABCD)$$

In $\triangle OBC$,

$$\angle OBC + \angle OCB + \angle BOC = 180^\circ$$

$$60^\circ + 45^\circ + \angle BOC = 180^\circ$$

$$\therefore \angle BOC = 75^\circ$$

Question 21

A point D is taken from the side BC of a right angled triangle ABC, where AB is hypotenuse. Then,

A $AB^2 + CD^2 = BC^2 + AD^2$

B $CD^2 + BD^2 = 2AD^2$

C $AB^2 + AC^2 = 2AD^2$

D $AB^2 + AD^2 = BD^2$

Answer: A

Explanation:

$\triangle ABC$ is a right angled triangle right angled at C

$$\Rightarrow AB^2 = AC^2 + BC^2 \quad (\text{From Pythagoras theorem})$$

$$\Rightarrow AC^2 = AB^2 - BC^2$$

$$\text{From } \triangle ACD, AD^2 = AC^2 + CD^2$$

Substituting $AC^2 = AB^2 - BC^2$ in above equation

$$AD^2 = AB^2 - BC^2 + CD^2$$

$$\Rightarrow AB^2 + CD^2 = BC^2 + AD^2$$

Question 22

Let C be a point on a straight line AB. Circles are drawn with diameters AC and AB. Let P be any point on the circumference of the circle with diameter AB. If AP meets the other circle at Q, then

- A QC // PB
- B QC is never parallel to PB
- C $QC = \frac{1}{2} PB$
- D QC // PB and $QC = \frac{1}{2} PB$

Answer: A

Explanation:

In $\triangle AQC$,

$$\angle AQC = 90^\circ (\because \text{Angle in a semi circle is } 90^\circ)$$

and in $\triangle APB$,

$$\angle APB = 90^\circ (\because \text{Angle in a semi circle is } 90^\circ)$$

Comparing two triangles $\triangle APB$ and $\triangle AQC$,

$$\angle QAC = \angle PAB$$

$$\angle AQC = \angle APB$$

$$\therefore \triangle APB = \triangle AQC$$

$$\therefore QC \parallel PB$$

Since we cannot prove that C is exactly midpoint of AB, $QC = \frac{1}{2} PB$ cannot be proved

Question 23

An isosceles triangle ABC is right angled at B. D is a point inside the triangle ABC. P and Q are the feet of the perpendiculars drawn from D on the sides AB and AC respectively of $\triangle ABC$. If AP = a cm, AQ = b cm and $\angle BAD = 15^\circ$, $\sin 75^\circ =$

- A $\frac{2b}{\sqrt{3a}}$
- B $\frac{a}{2b}$
- C $\frac{\sqrt{3a}}{2b}$
- D $\frac{2a}{\sqrt{3b}}$

Answer: C

Explanation:

$\triangle ABC$ is a right angled isosceles triangle right angled at B

$$\text{Here } \angle A = \angle C$$

$$90^\circ + 2\angle A = 180^\circ$$

$$\therefore \angle A = \angle C = 45^\circ$$

Given $\angle BAD = 15^\circ$

From $\triangle ABC$, $\angle BAC = \angle BAD + \angle DAQ$

$$\Rightarrow 45^\circ = 15^\circ + \angle DAQ$$

$$\therefore \angle DAQ = 30^\circ$$

From $\triangle DAQ$, $\angle AQD = 90^\circ$ and $\angle DAQ = 30^\circ$

$$\angle AQD + \angle DAQ + \angle ADQ = 180^\circ$$

$$90^\circ + 30^\circ + \angle ADQ = 180^\circ$$

$$\Rightarrow \angle ADQ = 60^\circ$$

From $\triangle ADQ$,

$$\sin 60^\circ = \frac{AQ}{AD}$$

$$\frac{\sqrt{3}}{2} = \frac{b}{AD} \quad (\because \sin 60^\circ = \frac{\sqrt{3}}{2})$$

$$AD = \frac{2b}{\sqrt{3}}$$

In $\triangle APD$, $\angle APD = 90^\circ$ and $\angle PAD = 15^\circ$

$$\angle APD + \angle PAD + \angle ADP = 180^\circ$$

$$90^\circ + 15^\circ + \angle ADP = 180^\circ$$

$$\Rightarrow \angle ADP = 75^\circ$$

From $\triangle APD$,

$$\sin 75^\circ = \frac{AP}{AD}$$

Substituting $AD = \frac{2b}{\sqrt{3}}$ in above equation

$$\Rightarrow \sin 75^\circ = \frac{a}{(\frac{2b}{\sqrt{3}})}$$

$$\therefore \sin 75^\circ = \frac{\sqrt{3}a}{2b}$$

Question 24

Each interior angle of a regular octagon in radians is

A $\frac{\pi}{4}$

B $\frac{3\pi}{4}$

C $\frac{2\pi}{3}$

D $\frac{1}{3}\pi$

Answer: B

Explanation:

Each angle of a regular Octagon = $\frac{1}{8}(2n - 4)$ right angle where n=no. of sides

$$= \frac{1}{8}(2 \times 8 - 4) \times 90^\circ$$

$$= \frac{12 \times 90^\circ}{8} = 135^\circ$$

$$180^\circ = \Pi$$

$$135^\circ = \frac{11}{180} \times 135^\circ = \frac{311}{4}$$

Question 25

Find the value of $\sqrt{30 + \sqrt{30 + \dots}}$

- A** 5
- B** 3
- C** 6
- D** 7

Answer: C

Explanation:

Let $X = \sqrt{30 + \sqrt{30 + \dots}}$

Above equation can be written as

$$X \Rightarrow \sqrt{30 + X}$$

Squaring on both sides

$$X^2 = 30 + X$$

$$X^2 - X - 30 = 0$$

$$X^2 - 6X + 5X - 30 = 0$$

$$X(X-6) + 5(X-6) = 0$$

$$(X-6)(X+5) = 0$$

$$X = -5, 6$$

Taking positive value

$$X = 6$$

Reasoning

Instructions

Select the related word/number from the given alternatives.

Question 26

Brain : Nerves : : Computer ?

- A** Calculator
- B** Keyboard
- C** Mouse
- D** CPU

Answer: D

Explanation:

Nerves helps the brain to function in the same way CPU helps the computer to function.

Hence, option D is the correct answer.

Question 27

Silkworm : Silk Saree : : Cobra : ?

- A** Antidote
- B** Poison
- C** Death
- D** Fear

Answer: B

Explanation:

Silkworm produces silk whereas cobra produces poison.

Hence, option B is the correct answer.

Instructions

Find the odd word from the given alternatives.

Question 28

- A** Cover
- B** Enclose
- C** Bag
- D** Annex

Answer: C

Question 29

- a: Illusion**
- b: Delusion**
- c: Identification**
- d: Hallucination**

- A** A
- B** B
- C** C
- D** D

Answer: C

Explanation:

All the given words are synonyms except 'Identification'

Hence, option C is the correct answer.

Instructions

For the following questions answer them individually

Question 30

Arrange the following words according to dictionary:

1: Inadequate

2: Institution

3: Inhospitable

4: Improvement

A 4, 2, 3, 5, 1

B 4, 1, 3, 5, 2

C 4, 1, 5, 3, 2

D 4, 1, 5, 2, 3

Answer: C

Question 31

Identify the correct answer containing letters which will most appropriately fill in the blanks.

a b a - a b - b - b a -

A a, a, a, b

B b, a, b, a

C b, a, a, b

D a, b, b, b

Answer: C

Explanation:

The pattern followed here is,

a b a b a b a b a b a b (repeating 'ab' for 6 times). Option C exactly fits in the blanks.

Hence, option C is the correct answer.

Instructions

Select the missing letter/number from the given responses.

Question 32

?, 187, 2057, 22627

A 25

B 27

C 15

D 17

Answer: D

Explanation:

Every number is multiplied by 11.

$17 \times 11 = 187,$

$187 \times 11 = 2057,$

$2057 \times 11 = 22627.$

Hence, option D is the correct answer.

Question 33

C, F, I, L, ?, R, U, X

A A

B T

C M

D O

Answer: D

Explanation:

The pattern followed here is,

$$C + 2 = F,$$

$$F + 2 = I,$$

$$I + 2 = L,$$

$$L + 2 = O \dots\dots\dots$$

Hence, option D is the correct answer.

Instructions

For the following questions answer them individually

Question 34

Nikhil was facing East. He walked 6 km forward and then after turning to his right walked 2 km. Again he turned to his right and walked 6 k. After this, he turned back. Which direction he was facing at that time ?

A East

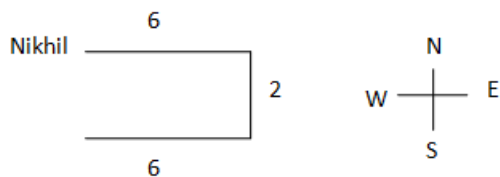
B West

C North

D North-South

Answer: A

Explanation:



Nikhil faces East finally after turning back.

Hence, option A is the correct answer.

Question 35

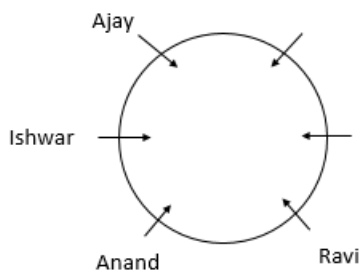
Six boys are standing in such a manner that they form a circle facing the centre. Anand is to the left of Ravi. Shankar is in between Ajay and Vivek. Ishwar is between Anand and Ajay. Who is to the left of Vivek ?

- A** Ravi
- B** Ishwar
- C** Ajay
- D** Shankar

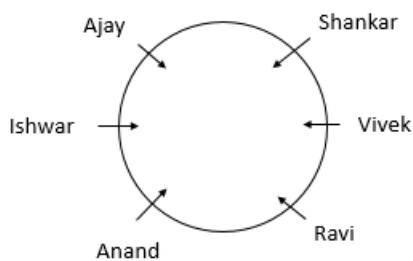
Answer: A

Explanation:

Anand is to the left of Ravi. Ishwar is between Anand and Ajay. From this conditions arrangement will be,



Shankar is in between Ajay and Vivek. Final arrangement will be,



From the above arrangement,

Ravi is to the left of vivek.

Hence, option A is the correct answer.

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Question 36

From the given alternatives, select the word which cannot be formed using the letters of the given word.
CONSIDERATION

- A** CONSIDER
- B** CONCERN
- C** NATION

D RATION

Answer: B

Explanation:

Except the word "CONCERN" other words can be formed using "CONSIDERATION"

There is only one 'C' in CONSIDERATION.

Hence, option B is the correct answer.

Question 37

If EARN is written as GCTP, how NEAR can be written in that code ?

A CTGP

B GPTC

C PGCT

D PCGT

Answer: C

Explanation:

The pattern followed here is,

$E + 2 = G$; $A + 2 = C$; $R + 2 = T$; $N + 2 = P$ i.e (n + 2)

NEAR is coded as,

$N + 2 = P$; $E + 2 = G$; $A + 2 = C$; $R + 2 = T$

NEAR - PGCT

Hence, option C is the correct answer.

Question 38

If AMPLIFY is written as YFILPMA In a certain code, how would NATIONAL be written in that code ?

A LANONATI

B LANOITAN

C LANTANIO

D LANTION

Answer: B

Explanation:

The positions of alphabets in the given word are reversed.

Hence, the code for NATIONAL will be LANOITAN

Hence, option B is the correct answer.

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Question 39

The population of a developing country is increasing year by year. Find out the current year population, from the following information:

Year 2004 2005 2006 2007 2008 2009

Pop. in lakhs 30 60 120 210 230 ?

- A** 390
- B** 450
- C** 480
- D** 510

Answer: C

Question 40

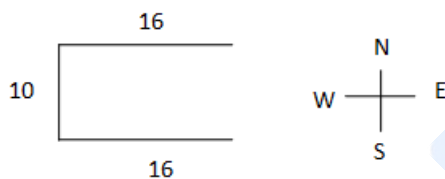
Gokul travelled 16 kms west ward, then he turned left and travelled 10 kms. Then he turned left and travelled 16 kms. How far was Gokul from the starting point ?

- A** 16 kms
- B** 26 kms
- C** 10 kms
- D** 6 kms

Answer: C

Explanation:

From the given information,



Gokul was 10 kms far from his starting point.

Hence, option C is the correct answer.

Question 41

In a code language, the following code is used for the alphabets in a particular way:

A B C D E H I J O P R S T

Latex

- A** LATCH
- B** PATIO
- C** PATCH
- D** LATER

Answer: C

Question 42

Refer to the information provided below

'M + N' means 'M' is father of 'N'

'M - N' means 'M' is daughter of 'N'

'M X N' means 'M is son of N'

'M ÷ N' means 'M is wife of 'N'

How is D related to G in the expression D - F + G ?

- A** Mother
- B** Sister
- C** Cannot be determined
- D** Daughter

Answer: B

Explanation:



D is the sister of G

Hence, option B is the correct answer.

Question 43

A nuclear fuel disintegrates as shown with time

9.10 am - 32 g

9.35 am - 16 g

10.00 am - 8 g

10.25 am - 4 g

And left at 11.40 am_____

- A** 2 g
- B** 1 g
- C** 500 mg
- D** 0.5 mg

Answer: D

Explanation:

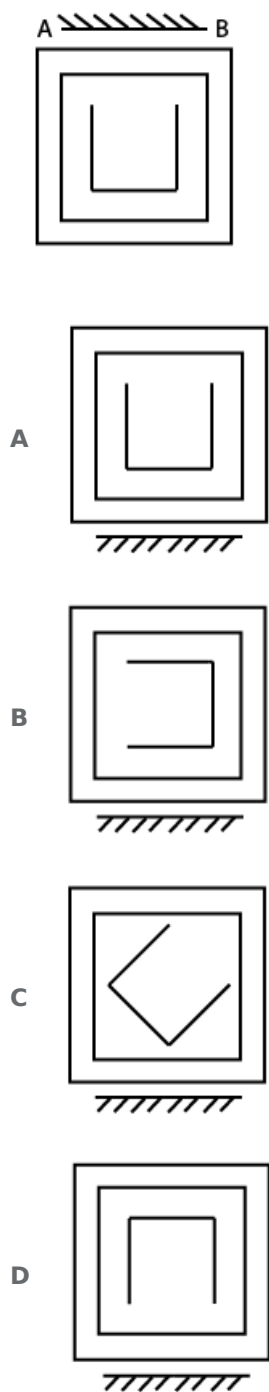
The nuclear fuel disintegrates half of its value every 25 min.

So, at 10:50 it becomes '2g', at 11:15 it becomes '1g' and at 11:40 it becomes 0.5g

Hence, option D is the correct answer.

Question 44

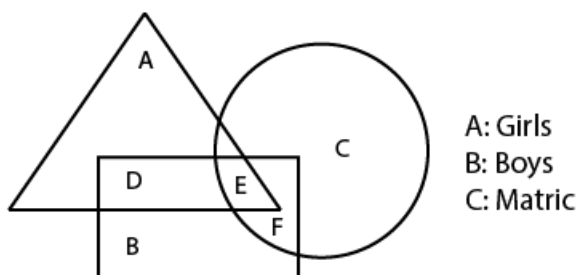
Which of the answer figure is the mirror image of the given figure if the mirror is held at AB ?



Answer: D

Question 45

In the given figures, triangle represents girls studying in a girls school, square represents boys studying in boys school and circle represents students studying in matriculation school. The portion which represent girls and boys studying in matriculation school is



A B

B A

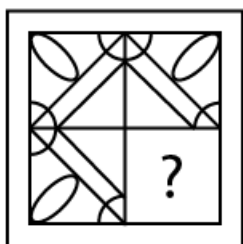
C C

D D

Answer: D

Question 46

Which answer figure will complete the pattern in the question figure ?



A



B



C



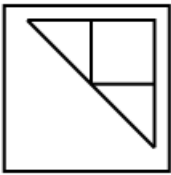
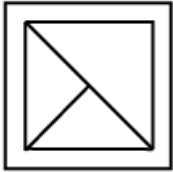
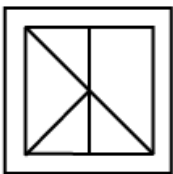
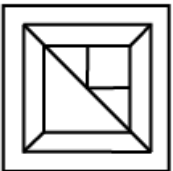
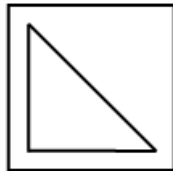
D



Answer: A

Question 47

A sheet of paper is folded in a particular manner, punched once and then unfolded. Punched, unfolded paper appears as, in the given figure. Find out the manner in which the paper was folded and punched by choosing the correct answer figure.

**A****B****C****D****Answer: C**

Question 48

A word is represented by only one set of any one of the alternatives. The Sets of numbers, given in the alternatives are represented by two classes of alphabets as in two matrices given below. The columns and rows of Matrix I are numbered from 0 to 4 and that of Matrix II are numbered from 5 to 9. A letter from these matrices can be represented first by its row and next by its column, e.g. 'F' can be represented by 01, 13, etc., and 'P' can be represented by 66, 78, etc. Similarly, you have to identify the set for the word 'MEN'.

MATRIX-I

	0	1	2	3	4
0	E	F	G	H	I
1	H	I	E	F	G
2	F	G	H	I	E
3	E	E	F	G	H
4	G	H	I	E	F

MATRIX-II

	5	6	7	8	9
5	L	M	N	O	P
6	O	P	L	M	N
7	M	N	O	P	L
8	P	L	M	N	O
9	N	O	P	L	M

A 56, 32, 69**B** 55, 31, 95**C** 75, 00, 95**D** 76, 00, 88**Answer:** C**Explanation:**

As per the given question,

'M' can be represented by 56, 68, 75, 87, 99.

Similarly,

E - 00, 12, 24, 30, 31, 43.

N - 57, 69, 76, 88, 95.

"75, 00, 95" is one of the combinations of the word MEN

Hence, option C is the correct answer.

Question 49

Select the missing number ?

2 2 8

3 3 18

4 4 ?

A 30**B** 16**C** 8**D** 32**Answer:** D

Explanation:

The pattern followed here is,

Square of 1st digit is added to the square of 2nd digit.

$$2^2 + 2^2 = 8$$

$$3^2 + 3^2 = 18$$

$$4^2 + 4^2 = 32$$

Hence, option D is the correct answer.

Question 50

6 7 21

8 6 24

12 9 ?

A 54

B 60

C 18

D 27

Answer: A

Explanation:

The pattern followed here is,

$$(6 \times 7) / 2 = 21,$$

$$(8 \times 6) / 2 = 24,$$

$$(12 \times 9) / 2 = 54.$$

Hence, option A is the correct answer.

= General Awareness

Instructions

For the following questions answer them individually

Question 51

As a result of 1857 Revolt, which ruler of native states of India was made prisoner ?

A Begum of Avadh

B Rani of Jhansi

C Bahadur Shah

D Raja of Vizianagaram

Answer: A

Question 52

What was the main aim of home Rule Movement ?

- A** To remove British rule
- B** To turn out Britishers
- C** To keep unity among Hindu-Muslims and fight for freedom
- D** To attain self-government within the British Empire

Answer: D

Question 53

When was the Non-violent Non-cooperation Movement started and by whom ?

- A** In 1919 by Motilal Nehru
- B** In 1919 by Mahatma Gandhi
- C** In 1920 by Mahatma Gandhi
- D** In 1920 by Lala Lajpat Rai

Answer: C

Question 54

Who was the Viceroy of India at the time of formation of the Indian National congress ?

- A** Lord Canning
- B** Lord Dufferin
- C** Lord Mayo
- D** Lord Elgin

Answer: B

Question 55

A person of which of the following blood groups can receive blood of any group ?

- A** A
- B** AB
- C** B
- D** O

Answer: B

Question 56

The percentage of carbon in cast iron is:

- A** 3 to 5
- B** 0.1 to 0.25

C 0.5 to 15

D 6 to 8

Answer: A

Question 57

Which gas is used as tear gas ?

A Latex1

B Latex2

C Calcium sulphide (CaS)

D Carbon sulphydry1 (CS)

Answer: D

Question 58

The Indian Constitution is regarded as

A Federal

B Unitary

C Parliamentary

D Federal in form and unitary in spirit

Answer: D

Question 59

Right to Property a

A Fundamental Right

B Directive Principle

C Legal Right

D Social Right

Answer: C

Question 60

The President of India can declare Emergency if there is

A War of threat of war

B Failure of Constitutional machinery

C Financial instability

D Any of these three

Answer: D

Question 61

In which year was the colour television introduced in India

- A** 1979
- B** 1980
- C** 1981
- D** 1982

Answer: D

Question 62

Nepanagar in Madhya Pradesh is famous for

- A** Textile
- B** Newsprint paper
- C** Hosiery
- D** Vegetable oil

Answer: B

Question 63

Which of the following is a direct tax ?

- A** Excise
- B** Sales Tax
- C** Income tax
- D** None

Answer: C

Question 64

Paper currency first started in India in

- A** 1862
- B** 1542
- C** 1601
- D** 1680

Answer: A

Question 65

How many banks were nationalized in 1969 ?

- A** 16
- B** 14
- C** 15
- D** 20

Answer: B

Question 66

FICN stands for

- A** Fair Indian Currency Note
- B** Fake Indian Currency Note
- C** Fresh Indian Currency Note
- D** Forged Indian Currency Note

Answer: B

Question 67

India's first talkie film produced in 1931 was

- A** Shakuntala
- B** Alam Ara
- C** Indra Sabha
- D** Neel Kamal

Answer: B

Question 68

Short-sightedness can be corrected by

- A** convex lens
- B** concave lens
- C** novex-concave lens
- D** concave-convex lens

Answer: B

Question 69

The velocity of light was first measured by

- A** Einstein
- B** Newton
- C** Roemer
- D** Galileo

Answer: C

Question 70

Which UN Agency has its H.Q. in Paris ?

- A** UNICEF
- B** ILO
- C** UNESCO
- D** FAO

Answer: C

Question 71

The Indus and Brahmaputra rivers are examples of

- A** Subsequent drainage
- B** Super-imposed drainage
- C** Consequent drainage
- D** Antecedent drainage

Answer: B

Question 72

‘Terra rossa’ is a latin word which means

- A** hot area
- B** red terrain
- C** lateritic region
- D** region near to the poles

Answer: B

Question 73

Which country has launched new virtual currency “petro” ?

- A** South Africa
- B** Venezuela
- C** Indonesia
- D** Japan

Answer: B

Question 74

“Yakuts” are the nomadic herders of

- A** Gobi
- B** Sahara
- C** Tundra
- D** Kalahari

Answer: C

Question 75

Beightan cup is associates with

- A** Hoceky
- B** Football
- C** Cricket
- D** Tennis

Answer: A

English

Instructions

Some parts of the sentences have erros and some have none. Find out which part of a sentence has an error, the appropriate letter (1, 2, 3). If a sentence is free from error, (4) is the Answer Sheet.

Question 76

- A** A senior doctor
- B** expressed concern
- C** about physicians recommended the vaccine
- D** No error

Answer: C

Question 77

- A** We have discussing
- B** all the known mechanisms
- C** of physical growth
- D** No error

Answer: A

Instructions

Sentence are given with blanks to be filled in with an appropriate word(s). Four alternatives are suggested for each question. Choose the correct alternative out of the four and indicate it in the Answer Sheet.

Question 78

If you had followed the rules, you.....disqualified.

- A** will not be
- B** would not be
- C** will not have been
- D** would not have been

Answer: D

Question 79

The housewife the cakes burning, and ran to switch off the oven.

- A** smell
- B** smells
- C** smelt
- D** smelling

Answer: C

Question 80

..... An old legend, King Rama lived in India.

- A** In the event of
- B** Due to
- C** According to
- D** In reference to

Answer: C

Instructions

Out of the alternatives, choose the one which best expresses the meaning of the given word and mark it in the Answer Sheet.

Question 81**GENIAL**

- A** Cordial
- B** Unselfish
- C** Careful
- D** Specific

Answer: A

Question 82**ACCRUE**

- A** Accumulate
- B** Accommodate
- C** Grow
- D** Suffice

Answer: A

Question 83**LOQUACIOUS**

- A** Talkative
- B** Slow
- C** Content
- D** Unclear

Answer: A

Instructions

In questions choose the word opposite in meaning to the given word and mark it in the Answer Sheet.

Question 84**SYNTHETIC**

- A** Natural
- B** Plastic
- C** Cosmetic

D Apathetic

Answer: A

Question 85

ACCORD

A Disagreement

B Welcome

C Disrespect

D Conformity

Answer: A

Question 86

INFIRMITY

A Employment

B Indisposition

C Strength

D Weakness

Answer: C

Instructions

In question, four alternatives are given for the idiom/phrase. Choose the alternatives which best expresses the meaning of the idiom/phrase and mark it in the Answer Sheet

Question 87

To be all at sea

A a family voyage

B lost and confused

C in the middle of the ocean

D a string of islands

Answer: B

Question 88

To take to one's heels

A to walk slowly

B to run away

C to march forward

- D** to hop and jump

Answer: B

Question 89

To bite the dust

- A** eat voraciously
- B** have nothing to eat
- C** eat roots
- D** None of the above

Answer: D

Instructions

A part of the sentence is underlined. Below are given alternatives to the underlined part at 1, 2, and 3 which may improve the sentence. Choose the correct alternative. In case no improvement is needed, your answer is 4.

Question 90

My friend lives in a nearby street whose name I have forgotten.

- A** the name of which
- B** which name
- C** of which name
- D** No improvement

Answer: D

Question 91

He both won a medal and a scholarship

- A** He won a medal and a scholarship both
- B** Both he won a medal and a scholarship
- C** He won both a medal and a scholarship
- D** No improvement

Answer: C

Question 92

He has for good left India.

- A** He has left for good India
- B** He has left India for good

C Good he has left India

D No improvement

Answer: B

Instructions

Out of the four alternatives, choose the one which can be substituted for the given words/sentence.

Question 93

Pertaining to cattle

A Canine

B Feline

C Bovine

D Verminous

Answer: C

Question 94

To look at someone in an angry or threatening way

A Glower

B Gnaw

C Gnash

D Grind

Answer: A

Question 95

A post with little work but high salary

A Director

B Trustee

C Sinecure

D Ombudsman

Answer: C

Instructions

For the following questions answer them individually

Question 96

An interview is important

A only for the recruiting agency

- B** only for the candidate
- C** only for the public outside
- D** both for the candidate and the recruiting agency

Answer: D

Question 97

Surveys on interviews emerged with

- A** flattering results
- B** misgivings on them as a mode of selection
- C** reasonable results
- D** glowing tributes

Answer: B

Instructions

In following Questions, a sentence has been given in Active/Passive voice out of the four alternatives suggested, select the one that best expresses the same sentence in passive/active voice and select your answer accordingly.

Question 98

She looks after the child

- A** The child are looked after by her
- B** The child were looked after by her
- C** The child is looked after by her
- D** None of these

Answer: C

Question 99

Who stole your pen ?

- A** Who was stole your pen ?
- B** By whom is your pen stolen ?
- C** By whom was your pen stolen ?
- D** By whom did your pen steal ?

Answer: C

Question 100

In the given Question, find the correctly spelt word.

- A** Supersede

- B** Superseed
- C** supercede
- D** supperssed

Answer: A

