



CMAT 2020

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Quantitative Techniques and Data Interpretation

Instructions

For the following questions answer them individually

Question 1

In how many ways a committee consisting of 5 men and 6 women can be formed from 8 men and 10 women ?

- A 5041
- B 5040
- C 11670
- D 11760

Answer: D

Explanation:

Number of ways a committee consisting of 5 men and 6 women can be formed from 8 men and 10 women

$$= {}^6C_5 \times {}^8C_6$$

$$= {}^6C_1 \times {}^8C_2$$

$$= \frac{10 \times 9 \times 8 \times 7}{1 \times 2 \times 3 \times 4} \times \frac{8 \times 7 \times 6}{1 \times 2 \times 3}$$

$$= (10 \times 3 \times 7) \times (8 \times 7)$$

$$= 210 \times 56 = 11760$$

=> Ans - (D)

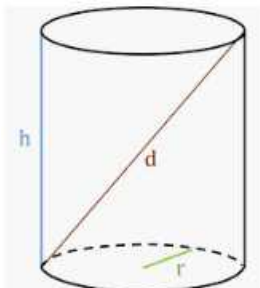
Question 2

What is the farthest distance between two points on a cylinder of: HEIGHT 8 and RADIUS 8 ?

- A $8\sqrt{5}$
- B $16\sqrt{5}$
- C $8\sqrt{2}$
- D $8\sqrt{3}$

Answer: A

Explanation:



Height of cylinder = 8 units and radius = 8 units

$$\Rightarrow \text{Farthest distance} = \text{hypotenuse} = \sqrt{(8)^2 + (16)^2}$$

$$= 8\sqrt{5} \text{ units}$$

=> Ans - (A)

Question 3

Find the smallest number by which 2400 should be divided to make it a perfect cube.

- A 220
- B 385
- C 260
- D 300

Answer: D

Explanation:

Prime factorization of :

$$2400 = (2)^5 \times (3) \times (5)^2$$

Now, to make it a perfect cube, we need to make the powers multiple of 3, and thus we need to divide it by = $(2)^2 \times 3 \times (5)^2 = 300$

=> Ans - (D)

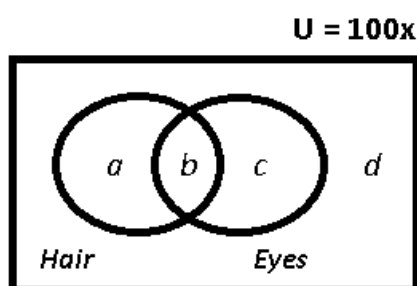
Question 4

In a certain town, 40% of people have brown hair, 30% of people have brown eyes and 12% have both brown hair and brown eyes. How many people in town have neither brown hair nor brown eyes ?

- A 44%
- B 43%
- C 41%
- D 42%

Answer: D

Explanation:



Let total number of people in the town = $100x$

People who have both brown hair and eyes = $b = 12x$

=> People who have brown hair = $a + b = 40x$

=> $a = 28x$

Similarly, $c = 18x$

\therefore People who have neither brown hair nor brown eyes = $100x - (12x + 18x + 28x) = 42\%$

=> Ans - (D)

Question 5

A company publishes to its customers that at a certain compound interest rate, a sum of money deposited by anyone will become 8 times in 3 years. If the same amount is deposited at the same compound rate of interest, then in how many years will it become 16 times ?

- A 4 years
- B 3.5 years
- C 3 years
- D 4.5 years

Answer: A

Explanation:

If a sum of money becomes x times in a years, it will become y times in b years

$$\Rightarrow (x)^{\frac{1}{a}} = (y)^{\frac{1}{b}}$$

$$\text{Similarly, } (8)^{\frac{1}{3}} = (16)^{\frac{1}{t}}$$

$$\Rightarrow (2)^{\frac{3}{3}} = (2)^{\frac{4}{t}}$$

$$\Rightarrow 1 = \frac{4}{t}$$

$$\Rightarrow t = 4 \text{ years}$$

\Rightarrow Ans - (A)

Question 6

The sum of two numbers is 135 and their HCF is 9. How many such pairs of numbers can be formed ?

- A 2
- B 5
- C 4
- D 6

Answer: C

Explanation:

Let the two numbers be $9x$ and $9y$, where x and y are co prime numbers.

$$\Rightarrow 9x + 9y = 135$$

$$\Rightarrow x + y = \frac{135}{9} = 15$$

Now, pairs of natural numbers having sum 15 and co prime are = (1,14), (2,13), (4,11), (7,8)

Thus, 4 such pairs can be formed.

\Rightarrow Ans - (C)

Question 7

Simplify the following: $\frac{0.3 \times 0.3 + 0.03 \times 0.03 - 0.6 \times 0.03}{0.54}$

- A 0.03
- B 0.135
- C 0.982
- D 9.37

Answer: B

Explanation:

According to BODMAS,

first Multiply the given numbers

$$0.3 \times 0.3 = 0.09$$

$$0.03 \times 0.03 = 0.0009$$

$$0.6 \times 0.03 = 0.018$$

simplifying this according to the given question,

$$0.09 - 0.0009 - 0.018 = 0.0729$$

$$\text{now } \frac{0.0729}{0.54}$$

$$\Rightarrow 0.135$$

Therefore answer is option b

Question 8

The LCM and HCF of two numbers are 84 and 21 respectively. If the ratio of two numbers is 1 : 4, then the larger among two numbers is:

A 28

B 48

C 88

D 84

Answer: D

Explanation:

Let the two numbers be x and $4x$

$$\Rightarrow x \times 4x = 84 \times 21$$

$$\Rightarrow x^2 = (21)^2$$

$$\Rightarrow x = 21$$

$$\therefore \text{Larger number} = 4 \times 21 = 84$$

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

Question 9

If $x : y = 2 : 3$, the value of $(3x + 2y) : (2x + 5y)$ is:

A $\frac{12}{25}$

B $\frac{11}{27}$

C $\frac{11}{15}$

D $\frac{12}{19}$

Answer: D

Explanation:

Let $x = 2$ and $y = 3$

To find : $\frac{3x+2y}{2x+5y}$

$$\begin{aligned} & 3(2)+2(3) \\ & = 2(2)+5(3) \end{aligned}$$

$$\begin{aligned} & \frac{12}{2} \\ & = 19 \end{aligned}$$

=> Ans - (D)

Question 10

The work done by a man, woman and child are in the ratio 3: 2:1. If daily wages of 20 men, 30 women and 36 children amount to 78/-, what will be the wages of 15 men, 21 women and 30 children for 18 weeks ?

A 7371/-

B 8645/-

C 7532/-

D 9000/-

Answer: A

Explanation:

Let the efficiency of a man, woman and child be $3x, 2x, x$ respectively.

$$\text{Thus, 1 day wage} = (3x \times 20) + (2x \times 30) + (x \times 36) = 78$$

$$\Rightarrow 156x = 78$$

$$\Rightarrow x = \frac{1}{2}$$

$$\therefore \text{Wages of 15 men, 21 women and 30 children for 18 weeks} = [(15 \times 3x) + (21 \times 2x) + (30 \times x)] \times 18 \times 7$$

$$= 117 \times \frac{1}{2} \times 126$$

$$= 117 \times 63 = \text{Rs. } 7,371$$

=> Ans - (A)

Question 11

X and Y are running towards each other from their houses. X can reach Y's house in 25 minutes which is half the time taken by Y to run from his house to X's house. If the two start to run towards each other at the same time, then how much more time it will be required by Y to reach the middle of houses ?

A 18 min.

B 25 min.

C 50 min.

D 12.5 min.

Answer: D

Explanation:

Time taken by X to reach Y's house = 25 minutes and by Y to reach X's house = 50 min

Ratio of time taken = 1 : 2

\therefore speed is inversely proportional to time, let speed of X = $2x$ km/min and speed of Y = x km/min and distance between their houses = $2d$ km

Using, speed = distance/time

$$\Rightarrow x = \frac{2d}{50} = \frac{d}{25}$$

$$\Rightarrow \frac{d}{x} = 25 \text{ -----(i)}$$

Now, time taken by Y to travel d km, i.e. mid way = $\frac{d}{x}$

= 25 minutes

Now, time taken by X to travel d km, i.e. mid way = $\frac{d}{2x}$

= 12.5 minutes

So, the correct answer is $25 - 12.5 = 12.5$ minutes

\Rightarrow Ans - (D)

Question 12

25,000/- is borrowed at compound interest at the rate of 3% for first year, 4% for 2nd year and 5% for 3rd year. Find the amount to be paid after 3 years.

A 28,117/-

B 28,118/-

C 28,120/-

D 28,119/-

Answer: D

Explanation:

Principal sum to be borrower = Rs. 25,000

Amount when compounded annually = $P(1 + \frac{R}{100})^T$

$$\Rightarrow \text{Amount to be paid after 3 years} = 25,000(1 + \frac{3}{100})(1 + \frac{4}{100})(1 + \frac{5}{100})$$

$$= 250 \times 103 \times \frac{26}{25} \times \frac{21}{20}$$

$$= 103 \times 13 \times 21 = \text{Rs. } 28,119$$

\Rightarrow Ans - (D)

Question 13

Two successive discounts of 8% and 12% are equal to a single discount of:

A 22%

B 19.04%

C 20%

D 20.96%

Answer: B

Explanation:

Two successive discounts of x and $y \equiv x + y - \frac{xy}{100}$

$$= 12 + 8 - \frac{12 \times 8}{100}$$

$$= 20 - 0.96 = 19.04\%$$

\Rightarrow Ans - (B)

Question 14

A shopkeeper marks his books at 25% above the cost price. Due to slump in the market, his cost reduces by 5%. And then, to boost his sale, he offered a discount of 8% due to which sales goes up by 25%. Compute the change in the shopkeepers profit.

- A No change
- B 7% change
- C 2.5% change
- D 8% change

Answer: A

Explanation:

Let cost price of each article = Rs. 100 and number of articles sold be x

=> Original selling price = Rs. 125

=> Original profit = Rs. $(125 - 100)x = Rs. 25x$

After offering discount of 8%, => New selling price = $\frac{92}{100} \times 125 = Rs. 115$

Also, new cost price = $\frac{95}{100} \times 100 = Rs. 95$

\therefore Sale increases by 25%, => Number of articles now sold = $1.25x$

=> New profit = Rs. $(115 - 95) \times 1.25x = Rs. 25x$

\therefore There is no change in profit.

=> Ans - (A)

Question 15

Brother and sister both appear for an interview. The probability of the selection of brother is $\frac{1}{8}$ while the probability of rejection of sister is $\frac{4}{5}$. What is the probability that only one of them is selected?

- A $\frac{11}{40}$
- B $\frac{7}{40}$
- C $\frac{5}{13}$
- D $\frac{1}{10}$

Answer: A

Explanation:

Probability of brother's selection = $\frac{1}{8}$ and probability of brother's rejection = $\frac{7}{8}$

Probability of sister's selection = $\frac{1}{5}$ and probability of sister's rejection = $\frac{4}{5}$

Probability that only one of them is selected = (prob. that brother is selected) \times (prob. that sister is not selected) + (Prob. that brother is not selected) \times (Prob. that sister is selected)

$$= \left(\frac{1}{8}\right)\left(\frac{4}{5}\right) + \left(\frac{7}{8}\right)\left(\frac{1}{5}\right)$$

$$= \frac{4}{40} + \frac{7}{40} = \frac{11}{40}$$

=> Ans - (A)

Question 16

Tom's salary is 150% of John's salary. John's salary is 80% of Steve's salary. What is the ratio of Steve's salary to Tom's salary ?

- A 4 : 5
- B 5 : 4
- C 6 : 5
- D 5 : 6

Answer: D

Explanation:

Let Steve's salary = Rs. 10

$$\Rightarrow \text{John's salary} = \frac{80}{100} \times 10 = \text{Rs. } 8$$

$$\Rightarrow \text{Tom's salary} = \frac{150}{100} \times 8 = \text{Rs. } 12$$

$$\therefore \text{Ratio of Steve's salary to Tom's salary} = \frac{10}{12} = 5 : 6$$

\Rightarrow Ans - (D)

Question 17

There are six teachers. Out of them, two teach physics, other two teach Chemistry and the rest two teach Mathematics. They have to stand in a row such that Physics, Chemistry and Mathematics teachers are always in a set. The number of ways in which they can do, is :

- A 24
- B 48
- C 36
- D 12

Answer: B

Explanation:

There are 2 physics teacher. They can stand in a row in $P(2, 2) = 2! = 2 \times 1 = 2$ ways

Similarly, the two Chemistry and Mathematics teacher can stand in 2 ways each.

These three sets can be arranged in themselves in $3! = 3 \times 2 \times 1 = 6$ ways

$$\Rightarrow \text{Required number of ways} = 2 \times 2 \times 2 \times 6 = 48$$

\Rightarrow Ans - (B)

Question 18

Five years ago, the average age of A, B, C and D was 45 years. By including X in the present lot their present average changes to 49 years. What is the present age of X?

- A 40 years
- B 45 years
- C 49 years
- D 48 years

Answer: B

Explanation:

Sum of ages of A, B, C and D five years ago = $45 \times 4 = 180$

Sum of their present ages = $180 + (5 \times 4) = 200$

Sum of present ages of all five (including X) = $49 \times 5 = 245$

=> Present age of X = $245 - 200 = 45$ years

=> Ans - (B)

Question 19

Which of the following sets of numbers can be used as the lengths of the sides of a triangle ?

A [5, 7, 12]

B [5, 7, 9]

C [7, 9, 17]

D [2, 4, 10]

Answer: B

Explanation:

In a triangle, the sum of two sides is always greater than the third side.

In the last two options, sum of first two sides is less than third side, and in first two options sum is equal to third side, hence these three are not possible.

Thus, possible lengths of triangle = [5,7,9]

=> Ans - (B)

Question 20

In how many different ways, can the letters of the words EXTRA be arranged so that the vowels are never together ?

A 168

B 48

C 120

D 72

Answer: D

Explanation:

Taking the vowels (EA) as one letter, the given word has the letters XTR (EA), i.e., 4 letters.

These letters can be arranged in $4! = 24$ ways

The letters EA may be arranged amongst themselves in $2! = 2$ ways.

Number of arrangements having vowels together = $(24 \times 2) = 48$ ways

Total arrangements of all letters = $5! = 120$ ways

=> Number of arrangements not having vowels together = $(120 - 48) = 72$ ways

=> Ans - (D)

Question 21

A city has an average demand of water of 33,000 Lts. of water which lasts for 50 days. But if some people enter the city, then the demand increases to 37,000 Lts. of water for which supply will last 35 days. Give an estimation of how much minimum water should be used daily so that it could last 50 days ?

A 24,253.00 Lts.

B 23,666.66 Lts.

C 23,662.34 Lts.

D 24,123.72 Lts.

Answer: B

Explanation:

Water capacity for 50 days is

$$33000 \times 50 = 1650000 \text{-----(1)}$$

water capacity for 35 days is

$$37000 \times 35 = 1295000 \text{-----(2)}$$

Let the minimum water to be used is K litres

$$\text{so, } K \times 15 = 355000$$

$$K = \frac{355000}{15}$$

$$K = 23666.66 \text{ litres.}$$

Therefore, estimation of how much minimum water should be used daily so that it could last 50 days is 23666.66litres.

Instructions

Number of Boys and Girls (in hundreds) in six different years in 5 different schools data is given below :

School →	A		B		C		D		E	
Years ↓	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
2014	3.3	3.6	5.2	3.1	5.5	4.5	2.4	1.4	6.5	6.6
2015	6.6	4.2	4.9	2.2	6.9	3.3	4.4	2.3	5.5	3.6
2016	9.3	6.9	4.7	4.2	5.8	4.9	6.4	3.3	2.7	2.4
2017	5.4	9.6	6.3	5.4	6.6	5.2	5.3	5.4	5.4	5.7
2018	8.4	12.9	7.5	5.9	8.7	6.6	12.1	5.2	6.8	6.5
2019	12.3	14.4	9.8	4.4	11.7	4.2	12.2	9.4	10.8	12.7

Question 22

What is the approximate percentage decrease in the number of boys in school D in the year 2017 as compared to the previous year ?

A 17%

B 5%

C 9%

D 12%

Answer: A

Explanation:

Number of boys in school D in the year 2017 = 530

Number of boys in school D in the year 2016 = 640

$$\Rightarrow \text{Required percent decrease} = \frac{640-530}{640} \times 100$$

$$= \frac{110}{64} \approx 17\%$$

\Rightarrow Ans - (A)

Question 23

The number of girls in school B in the year 2018 is approximately what percent of the total number of students in school E in the year 2015 ?

A 52%

B 65%

C 58%

D 46%

Answer: B

Explanation:

The number of girls in school B in the year 2018 = 590

Total number of students in school E in the year 2015 = 550+360 = 910

$$\Rightarrow \text{Required \%} = \frac{590}{910} \times 100 \approx 65\%$$

\Rightarrow Ans - (B)

Question 24

What is the average number of girls in school A in all years taken together ?

A 860

B 600

C 760

D 800

Answer: A

Explanation:

Total number of girls in school A in all years taken together = 360+420+690+960+1290+1440 = 5160

$$\Rightarrow \text{Required average} = \frac{5160}{6} = 860$$

\Rightarrow Ans - (A)

Question 25

What is the ratio of the number of boys in school C in the year 2018 to the number of girls in school A in the year 2018 ?

A 29 : 43

B 36 : 11

C 36 : 13

D 29 : 41

Answer: A

Explanation:

Number of boys in school C in the year 2018 = 870

Number of girls in school A in the year 2018 = 1290

=> Required ratio = $\frac{870}{1290} = 29 : 43$

=> Ans - (A)

Logical Reasoning

Instructions

For the following questions answer them individually

Question 26

In the following, choose the pair/ group of words having same relationship as given in question.

Elevated : Exalted :: :

- A Disorderly : Unfaithful
- B Raise : Commensurate
- C Promoted : Excellence
- D Dirty : Filthy

Answer: D

Explanation:

The two words given are synonyms, meaning at a higher level, similarly only pairs of synonyms in the options are Dirty : Filthy

=> Ans - (D)

Question 27

The question given below consists of a statement, followed by 3 arguments numbered I, II and III. You should decide which of the arguments is/are 'strong' argument(s) and which is/are 'weak' argument(s) and accordingly choose your answer from given options.

Statement:

Should religion be taught in schools ?

Arguments:

- I. No, ours is a secular state.
- II. Yes, teaching religion helps inculcate moral values among children.
- III. No, how can one dream of such a step when we want the young generation to fulfill its role in the 21st century.

- A All are strong
- B Only I and III are strong
- C Only II is strong
- D Only I is strong

Answer: C

Explanation:

The statement is Should religion be taught in schools ?

of the options only argument in II Presents a strong case in favor of teaching religion , rest options are not very strong to consider teaching or not .

So C is the correct answer.

Question 28

Find the missing letters.

__ a b a __ b a _ a b

A a b b a b

B b a a b b

C a b b a

D b b a b a

Answer: A

Explanation:

The pattern followed after filling all the blanks.

(A) : a b a b a b a b a b a b

(B) : b a a b a a b b a b a b

(D) : b b a b a a b b a a a b

If we look carefully, we can find only first option making a pattern, ab/ab/ab/ab/ab/ab

=> Ans - (A)

Question 29

What comes next ?

3, 12, 27, 48, 75, 108,

A 183

B 147

C 192

D 162

Answer: B

Explanation:

The pattern followed is that odd multiples of 3 (starting from 9 are added).

$$3 + 9 = 12$$

$$12 + 15 = 27$$

$$27 + 21 = 48$$

$$48 + 27 = 75$$

$$75 + 33 = 108$$

$$108 + 39 = \mathbf{147}$$

=> Ans - (B)

Question 30

From the given alternatives find the correct relationship that holds between two terms :

FJUL : BOQQ :: LHRX :

A HCMM

B HMNC

C HMCM

D HMCC

Answer: B

Explanation:

Expression = FJUL : BOQQ :: LHRX :

The pattern followed is :

$F \xrightarrow{-4} B$

$J \xrightarrow{+5} O$

$U \xrightarrow{-4} Q$

$L \xrightarrow{+5} Q$

Similarly, LHRX : **HMNC**

$L \xrightarrow{-4} H$

$H \xrightarrow{+5} M$

$R \xrightarrow{-4} N$

$X \xrightarrow{+5} C$

=> Ans - (B)

Question 31

Should all the factories in the cities be shifted to outskirts far away from the main city ?

Arguments:

I. Yes, this is essential step for controlling pollution in the city.

II. No, such step will lead to lot of inconvenience to the employees of the factories and their families as well.

A If both I and II are strong.

B If neither I nor II is strong.

C If only II is strong.

D If only argument I is strong.

Answer: D

Explanation:

The given statement begs a question whether the factories should be shifted to outskirts away from the main crowded cities, if we look at the hindsight, it will definitely help curb the pollution. Hence, I is strong because pollution control is highly desirable. II is weak. There may be some inconvenience initially but in fact their families would live better lives in the outskirts.

=> Ans - (D)

Question 32

A man wears gloves of two colours - Red and Green. He has altogether 30 Red Gloves and 10 Green Gloves. Supposing he has to take out Gloves in dark, how many must he take out to be sure that he has a matching pair ?

A 4

B 5

C 6

D 3

Answer: D

Explanation:

There are 30 red gloves and 10 green gloves, so he needs to take atleast two socks, to get a pair, now there can be one sock of each colour, so to be definite sure about a matching pair, he should once again pull out a sock, and the resulting sock will definitely match with either of the earlier ones, and he will get a pair.

Thus, he needs to take **3** to be sure for a matching pair.

=> Ans - (D)

Question 33

In a certain code language, RUSTICATE is written as QTTUIDBSD. How would STATISTIC be written in that code ?

- A RSBUITUHB
- B RSBUJTUHB
- C TUBUITUMB
- D RSBUIRSJD

Answer: A

Explanation:

RUSTICATE is written as QTTUIDBSD

The pattern followed is :

R	U	S	T	I	C	A	T	E
(-1)	(-1)	(+1)	(+1)	(+0)	(+1)	(+1)	(-1)	(-1)
Q	T	T	U	I	D	B	S	D

Similarly, STATISTIC :

S	T	A	T	I	S	T	I	C
(-1)	(-1)	(+1)	(+1)	(+0)	(+1)	(+1)	(-1)	(-1)
R	S	B	U	I	T	U	H	B

=> Ans - (A)

Question 34

The following question is given by 2 statements and 2 conclusions numbered I and II. Choose the right answer from given option.

Statements:

- All huts are bunglows.
- All bunglows are churches.

Conclusions:

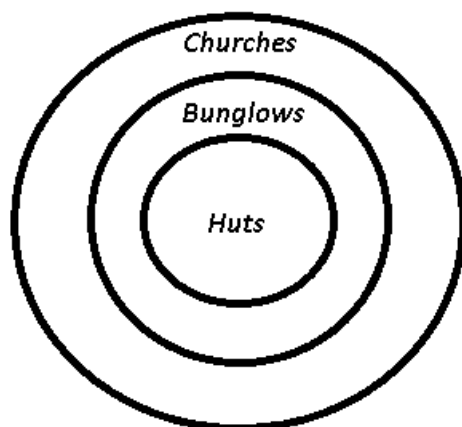
- I. Some churches are huts.
- II. Some churches are bunglows.

- A If only conclusion II follows.
- B If either conclusion I or II follows.
- C If only conclusion I follows.
- D If both conclusion I and II follow.

Answer: D

Explanation:

Venn diagram for above statements is :



Conclusions:

I. Some churches are huts = true

II. Some churches are bunglows = true

Thus, both conclusion I and II follow.

=> Ans - (D)

Question 35

Choose the right answer, based on the relationship given in question.

Clasp: Bracelet

A Hook : Coat

B Cuff : Trousers

C Wrist : Watch

D Buckle : Belt

Answer: D

Explanation:

A clasp is one which holds a bracelet, similarly relationship is observed in buckle : belt.

=> Ans - (D)

Question 36

Identify the odd man out.

A Brinjal

B Cabbage

C Papaya

D Cucumber

Answer: B

Explanation:

Brinjal, Papaya and cucumber have seeds but Cabbage does not have seeds.

so, Answer is option B

Question 37

In the following question, select one alternative in which the third statement is implied by the first two statements.

- A All wolve's are wild. All tiger's are wild. So,all tigers are wolves.
- B All buses are boxes. All hens are buses. So, all boxes are hens.
- C All POR can run. All ABC are POR. So, all ABC can run.
- D All oranges are red. Somepeaches are strawberries. So, all peaches are red.

Answer: C

Explanation:

- (A) : From the first two statements, we cannot conclude any relation between tigers and wolves.
- (B) : All hens are buses, and all buses are boxes, thus all hens are boxes, and not the other way around.
- (C) : The first two statements matches with the conclusion that all ABC can run.
- (D) : There is no defined relation between peaches and red.

=> Ans - (C)

Instructions

Comprehension:

Mr. Ravi Reddyhas three children - Swarna, Kamal and Avinash. Avinash married Madhuri, the eldest daughter of Mr. and Mrs. Chowdhry. The Chowdhry's married their youngest daughter to the eldest son of Mr. and Mrs. Patel, and they had two children named Arun and Sharada. The Chowdhry's have two more children Ratan and Varsha, both elder to Veeksha. Sameer and Ajay are sons of Avinash and Madhuri. Rohini is the daughter of Arun.

Question 38

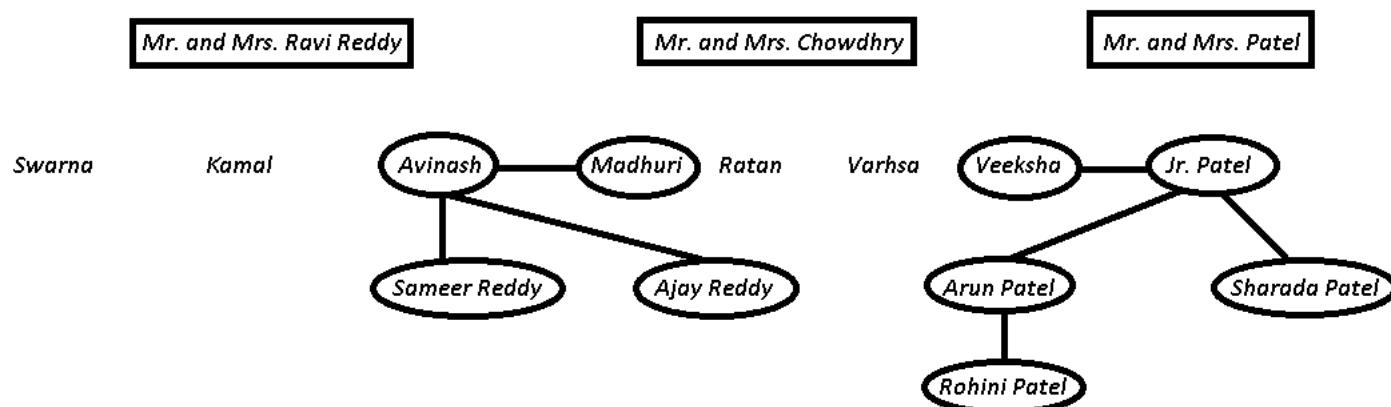
What is the surname of Rohini ?

- A Arora
- B Reddy
- C Chowdhry
- D Patel

Answer: D

Explanation:

The above statements when represented in pictorial graph is :



Thus, Surname of Rohini is Patel.

=> Ans - (D)

Question 39

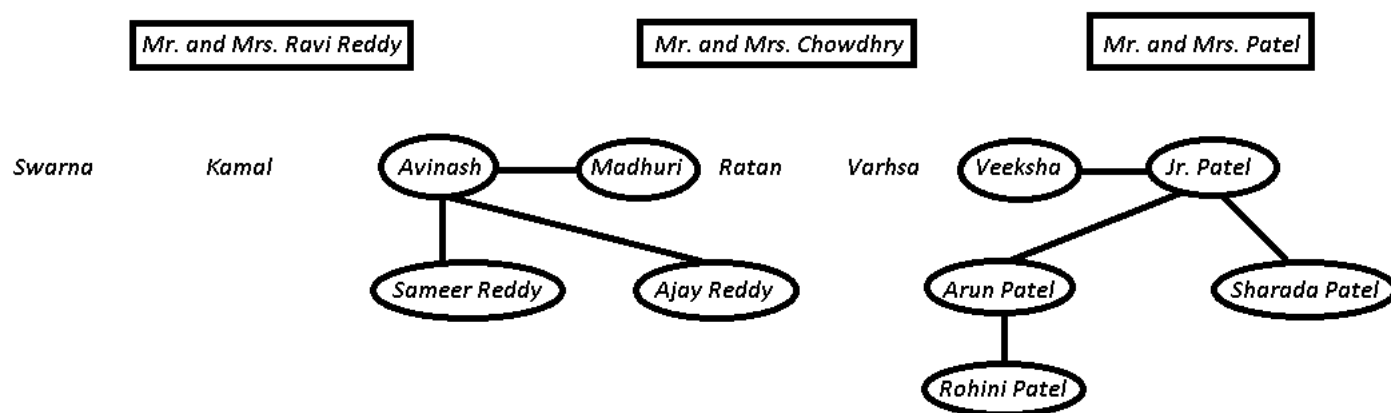
How is Sameer related to Madhuri's father ?

- A Grandson
- B Son-in-Law
- C Son
- D Father-in-Law

Answer: A

Explanation:

The above statements when represented in pictorial graph is :



Thus, Sameer is **grandson** of Madhuri's father.

=> Ans - (A)

Question 40

What is the surname of Sameer ?

- A Chowdhry
- B Cannot be determined
- C Patel
- D Reddy

Answer: D

Explanation:

The above statements when represented in pictorial graph is :

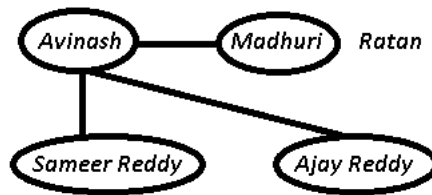
Mr. and Mrs. Ravi Reddy

Mr. and Mrs. Chowdhry

Mr. and Mrs. Patel

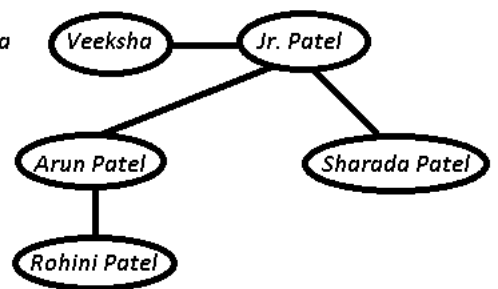
Swarna

Kamal



Ratan

Varhsa



Thus, Surname of Sameer is Reddy.

=> Ans - (D)

Question 41

How is Mrs. Chowdhry related to Avinash ?

- A Aunt
- B Sister-in-Law
- C Mother-in-Law
- D Mother

Answer: C

Explanation:

The above statements when represented in pictorial graph is :

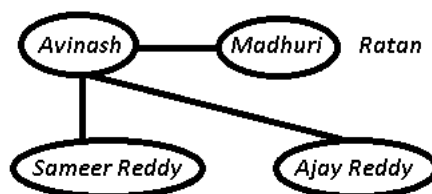
Mr. and Mrs. Ravi Reddy

Mr. and Mrs. Chowdhry

Mr. and Mrs. Patel

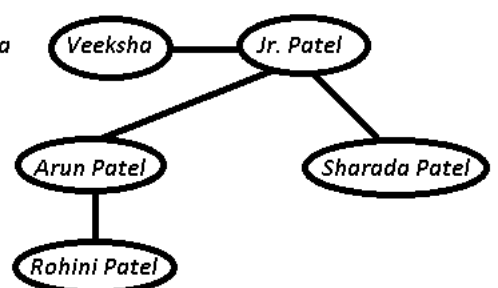
Swarna

Kamal



Ratan

Varhsa



Thus, Mrs. Chowdhry is **mother-in-law** of Avinash.

=> Ans - (C)

Instructions

For the following questions answer them individually

Question 42

In the following alphabets, which letter is eight to the right of the fourteenth letter from the right end ?
ZABCDEFGHIJKLMNQRSTUUVWXY

A S

B H

C R

D T

Answer: D

Explanation:

ZABCDEFGHIJKLMN O PQRSTU VWXY

Eighth to the right of the fourteenth letter from the right end = 6th letter from right end = T

=> Ans - (D)

Question 43

Saritha went 15 km to the West from her house, then turned left and walked 20 km. She then turned East and walked 25 km and finally turning left covered 20 km. How far is she from her house ?

A 80 km

B 40 km

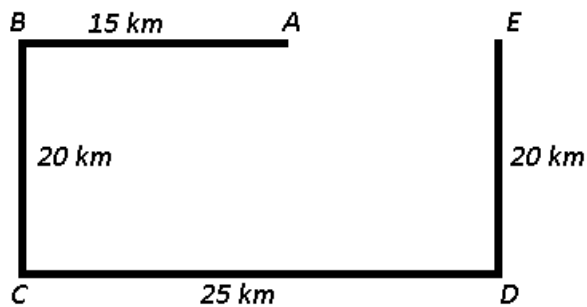
C 5 km

D 10 km

Answer: D

Explanation:

Let Saritha starts from point A and went 15 km to the West from her house to reach B, then turned left and walked 20 km southwards to reach C. She then turned East and walked 25 km to go to D and finally turning left covered 20 km to finally stop at E.



Thus, she is 10 km east of her house.

=> Ans - (D)

Question 44

Choose the correct order.

(A) Yarn (B) Silkworm (C) Saree (D) Silk (E) Cloth

A (C), (D), (A), (B), (E)

B (B), (D), (A), (E), (C)

C (B), (D), (E), (A), (C)

D (B), (D), (C), (E), (A)

Answer: B

Explanation:

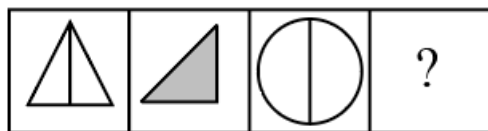
The correct order as silkworm produces silk and then after yarn, in the end saree is made :

Silkworm -> Silk -> Yarn -> cloth -> Saree

=> Ans - (B)

Question 45

What comes next ?



Answer: A

Explanation:

In the first pair of pictures, a triangle is formed by joining two hypotenuse triangles, and the second picture shows left side triangle with a shade, similarly, for the two semi circles, we need one on the left side, i.e. curve on left with grey shade, as shown in first figure.

=> Ans - (A)

Question 46

Standing near a bus stop, Ayush told Smitha that Koti was more than ten kilometres but less than 15 kilometres from there. Smitha know that it was more than 12 kilometres but less than fourteen kilometres from there. If both of them were correct, which of the following could be the distance to Koti from the bus stop ?

A 14 km

B 12 km

C 11 km

D 13 km

Answer: D

Explanation:

According to Ayushman : Koti was more than ten kilometres but less than 15 kilometres from there

=> Possible values = [11,12,13,14]

Similarly, According to Smitha, it was more than 12 kilometres but less than fourteen kilometres from there.

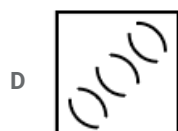
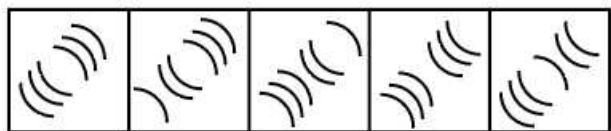
=> Possible values = [13]

If both of them were correct, combining above sets, we get the required distance = **13 km**

=> Ans - (D)

Question 47

What comes next ?



Answer: C

Explanation:

As per the pattern



will be the next figure .

Question 48

Identify the missing numbers.

9	11	13
13	15	17
10	12	14
10	12	14
14	16	?
11	13	?

A 22, 20

B 14, 18

C 12, 13

D 18, 15

Answer: D

Explanation:

In each row, the pattern followed is there are consecutive even or odd numbers as

(9,11,13), (13,15,17), (10,12,14)

Similarly, the missing series will be : 14,16,18 and 11,13,15

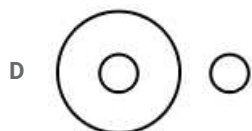
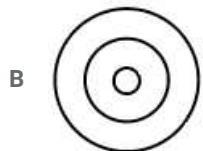
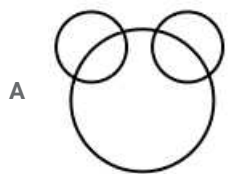
Thus, missing values = **18, 15**

=> Ans - (D)

Question 49

How is this represented using a Venn diagram ?

Shirt, Collar, Pocket



Answer: C

Explanation:

Generally, every shirt has a collar and a pocket, but these two are different from each other, thus the venn diagram that best describes above relation is :



=> Ans - (C)

Question 50

In the following question, different letters stand for various symbols as indicated below :

R: Addition

S: Subtraction

T: Multiplication

U: Division

V : Equal to

W: Greater than

X: Less than

Out of the four alternatives given only one is correct according to the above letter symbols. Identify the correct one.

A 16T2R4U6X8

B 16U2R4S6W8

C 16R2S4V6R8

D 16T2U4V6R8

Answer: C

Explanation:

(A) : 16T2R4U6X8

$$\equiv 16 \times 2 + 4 \div 6 < 8$$

L.H.S. = $32 + \frac{4}{6} = 32.67$ which is greater than 8, hence it is not correct.

(B) : 16U2R4S6W8

$$\equiv 16 \div 2 + 4 - 6 > 8$$

L.H.S. = $8 - 2 = 6$ which is less than 8, hence it is also not correct.

(C) : 16R2S4V6R8

$$\equiv 16 + 2 - 4 = 6 + 8$$

$$\text{L.H.S.} = 18 - 4 = 14$$

$$\text{R.H.S.} = 6 + 8 = 14$$

\therefore L.H.S. = R.H.S., hence it is correct.

=> Ans - (C)

Language Comprehension

Instructions

Comprehension:

The reformer must know that what moves people is the authentic life, not mere writing. The newspaper and journals that Tilak and other reformers ran, the books they wrote, sold little, but had an enormous effect. Their writing was known to reflect and be just an

extension of, their exemplary lives. It was the authenticity of their lives which lent weight to their message, to their example. All knew that their lives were an integral whole - they were not moral in public life and lacking in private, not vice versa. They were not full of pious thoughts and sacred resolutions within the walls of a temple.

A writer who is merely entertaining his readers, even one who is merely informing them, can do what he wants with the rest of his life. But the writer, who sets out to use his pen to reform public life, can not afford such dualities. Here is the testimony of one great man - about the influence of another, Lokmanya Tilak.

"I believe that an editor who has anything worth saying and who commands a clientele cannot easily be hushed. He delivered his finished message as soon as he is put under duress. Tilak spoke more eloquently from the Mandalay fortress than through columns of the printed Kesari. His influence was multiplied a thousandfold by his imprisonment and his speech and his pen had acquired much greater power after he was discharged than before his imprisonment. By his death we have been editing his paper without pen and speech through the sacred resolution of the people to realize his life's dream.

He could possibly have done more if he were today in flesh preaching his view. Critics like me would perhaps be still finding fault in the expression of this or that. Today, his message rules millions of hearts which are determined to raise permanent a living memorial by the fulfilment of his ambition in their lives".

Question 51

Complete the following sentence:

Tilak's messages were most effective

- A when he delivered them through editorials
- B after his death
- C before his imprisonment
- D when delivered in speeches

Answer: D

Question 52

Which of the following is the result of Lokmanya Tilak's exemplary life ?

- A People resolved to fulfil his life's dreams
- B The newspapers edited by him did not incur monetary loss
- C He was put in jail at Mandalay
- D The books written by him are useful

Answer: A

Question 53

Which of the following is the general tendency of critics according to the passage ?

- A To condemn one and all the reformer writers
- B To justify their criticism
- C To praise only those writers who they like
- D To find fault with one or the other expression of a writer

Answer: A

Question 54

In the context of the passage, a reformer becomes effective if :

- A** he is a journalist with an objective view point
- B** he is an author with an excellent style of writing
- C** he is good critic of social practices
- D** he is a person with consistency in his writing and life style

Answer: D

Question 55

Which of the following types of writers can be moral in their personal life and lack in public life ?

- A** Those who want to reform people
- B** Those whose writing is an extension of their exemplary lives
- C** Those who lead an authentic life
- D** Those who want to entertain people

Answer: B

Question 56

In the context of the passage, which of the following statements about Tilak and the reformers is true ?

- A** They were moral in private life but lack in public life
- B** Very few people used to read the newspapers even from inside the jail
- C** They were allowed to edit their newspapers even from inside the jail
- D** Their influence on people was negligible

Answer: C

Instructions

For the following questions answer them individually

Question 57

Choose the correctly spelt word.

- A** Foreign
- B** Fariegn
- C** Foriegn
- D** Forein

Answer: A

Question 58

In the following sentence, choose the nearest similar meaning word so that the meaning of sentence may not change.
Ritu asked Rashmi not a meddle in her affairs.

- A enthuse
- B impose
- C interfere
- D cross

Answer: C

Question 59

Radha keeps an open house every weekend to teach yoga.
What does the underlined word mean ?

- A Welcomes all those who are interested
- B Keeps the doors of her house open
- C Welcomes selected group of people
- D Welcomes yoga practioners

Answer: A

Question 60

The appropriate meaning of stir up a hornet's nest would be

- A to create trouble
- B to quicken an action
- C to destroy homes and settlements
- D to mix the good and the bad

Answer: A

Question 61

New Metro Rail Project was commissioned yesterday at Hyderabad by the State Railway Minister. What is the opposite of the underlined word ?

- A Closed
- B Started
- C Finished
- D Terminated

Answer: D

Question 62

Fill in the blank with appropriate word(s).

One who believes in no Government and the refore incites disorder in a state is called

- A a Naxalite
- B an Autocrate
- C a Monarchist
- D an Anarchist

Answer: D

Question 63

Fill in the blank(s) with appropriate word/ words.

Confused and Shyam fumbled to make sense of seemingly inconsistent statements, the impatience of his listeners.

- A prostrate, listening to
- B philosophical, overlooking
- C incoherent, oblivious to
- D tired, hearing

Answer: D

Question 64

In this question, a word is underlined in the given sentence. For the underlined word, four words are listed below. Choose the word nearest in meaning to the underlined word.

The football coach had a sympathetic presence, albeit a commanding one.

- A Although
- B Further more
- C Because
- D Not only

Answer: A

Question 65

In this question, you are given a sentence, a part of which is underlined. This is followed by four waysof phrasing the underlined part. Select the version that best rephrases the underlined part.

We want the teacher to be him who has the best rapport with the students.

- A We want him to be the teacher.
- B We want the teacherto be he.
- C We anticipate the teacher to be him.

D We desire the teacher to be him.

Answer: A

Question 66

The question has a group of sentences marked A, B, C, D and E. Arrange these to form a logical sequence.

- (A) but there is some merit in it
- (B) as distinct from consumption
- (C) the bifurcation of plan and non-plan funds
- (D) in so far as it focuses attention on development expenses
- (E) in the budget in artificial

A (D), (C), (A), (B), (E)

B (D), (E), (A), (C), (B)

C (C), (E), (A), (B), (D)

D (C), (D), (B), (E), (A)

Answer: B

Question 67

Rajiv's utopian idea was entertaining, but not acceptable. What does the underlined word mean ?

A imaginary idea

B classic idea

C big idea

D unworthy idea

Answer: A

Question 68

Form a meaningful sentence from the given sentences.

- (A) It results from a carefully revised plan
- (B) Men work together for a cause or purpose
- (C) Team work does not just happen
- (D) It must be clearly known to them

A (C), (A), (B), (D)

B (B), (C), (D), (A)

C (B), (C), (A), (D)

D (C), (B), (D), (A)

Answer: A

Question 69

What do you understand by - FRATRICIDE ?

A murder of a foetus

- B murder of oneself
- C murder of father
- D murder of brother

Answer: D

Question 70

Select the word or phrase which is closest to the opposite in meaning to the underlined word.
You are advised to show clemency to the defeated enemy.

- A Mercy
- B Cruelty
- C Kindness
- D Leniency

Answer: B

Explanation:

Clemency means Kindness, Mercy

The opposite of Clemency is cruelty, brutality

Therefore answer is option b.

Question 71

Fill in the blank(s) with appropriate word/ words.

As head of the organisation, he attended social functions and civil meetings, but had no in the formulation of company policy.

- A hypothetical, vote
- B former, pride
- C nominal, competition
- D titular, voice

Answer: B

Explanation:

Let us see the meaning of the given words

Word

Titular

Hypothetical

Meaning

Holding or constituting a purely formal position or title without any real authority.

being or involving a hypothesis. Hypothesis is a supposition or

proposed explanation made on the basis of limited evidence as a starting

point for further investigation.

(of a role or status) Existing in name only

Nominal

While 'titular', 'former' and 'nominal' are possible options for

the first blank, 'competition' is totally out of context for the second

blank.

Now we are down to two choices, (B) or (D). One does not 'have pride' but 'takes pride' in the formulation of company policy.

Moreover, the sentence subtly indicates a non-appreciative tone in reference to the head of the organization.

Hence, option (D) would fit the blank.

Question 72

Choose the most suitable word for the given expression.

One who cannot die.

A Invulnerable

B Perpetual

C Mortal

D Immortal

Answer: D

Question 73

Fill in the blank with appropriate word/words.

Harris thirteen pages when his laptop crashed.

A is typing

B had already typed

C has typed

D typed

Answer: B

Question 74

Rajni is a Voracious reader.

The meaning of the underlined word is:

A tenacious

B truthful

C spacious

D ravenous

Answer: D

Question 75

Choose an appropriate synonym for the given word:

WREAK

A to sweat

B to sting

C to twist

D to inflict

Answer: D

Explanation:

Wreak means to cause the infliction of

Therefore, answer is D

General Awareness

Instructions

For the following questions answer them individually

Question 76

Who wrote the book "The Paradoxical Prime Minister" ?

A Khushwant Singh

B Shashi Tharoor

C Arundhati Roy

D Vikram Seth

Answer: B

Explanation:

The Paradoxical Prime Minister: Narendra Modi And His India is a 2018 non-fiction book written by senior leader of the Indian National Congress, Shashi Tharoor, about the Prime Minister of India, Narendra Modi.

Question 77

VAIO is the product of which company ?

A Dell

B Verizon Associates

C Sony

D Compac

Answer: C

Explanation:

VAIO was originally a brand of **Sony**, introduced in 1996

Question 78

How many overs were allowed per side in the inaugural 1975 Cricket World Cup ?

A 60

B 50

C 25

D 40

Answer: A

Question 79

Who is the founding member of Muslim League?

A Md.Ali Jinnah

B Aga Khan

C Shaukat Ali

D Nawab Khwaja Salimullah

Answer: A

Question 80

In India, how many banks were nationalised during Second Round of Nationalization in 1980 ?

A 7 Banks

B 6 Banks

C 8 Banks

D 5 Banks

Answer: B

Question 81

EXIM Policy of India is prepared by

A SEBI

B Ministry of Finance

C Ministry of Commerce

D RBI

Answer: C

Question 82

Which Indian has become the first woman in the world to be awarded with the International Maritime Organisation (IMO) award for Exceptional Bravery at sea ?

A P.V. Sindhu

B Radhika Menon

C Bhawana Kanth

D Avani Chaturvedi

Answer: B

Question 83

What do you call the study of inscriptions ?

- A Palaeography
- B Archaeology
- C Numismatics
- D Epigraphy

Answer: D

Explanation:

Epigraphy (Ancient Greek: ἐπιγραφή), "**inscription**", is the **study of inscriptions**

Question 84

'Grapevine' is the term used in relation to

- A E-mail Communication
- B Group Communication
- C Formal Communication
- D Informal Communication

Answer: D

Question 85

Birla Industrial and Technological Museum is located in the state

- A Maharashtra
- B West-Bengal
- C Bihar
- D Karnataka

Answer: B

Question 86

The length of the longest railway platform in India is

- A 4481.6 ft.
- B 4412 ft.
- C 4492 ft.
- D 4432 ft.

Answer: A

Explanation:

The world's longest station platform is at Gorakhpur Junction in India at 1,355.40 metres (**4481.627ft**)

Question 87

MDMK is Political Party, what does it stand for ?

- A** Makkal Dravida Munnetra Kazhagam
- B** Munnetra Dravida Marumalarchi Kazhagam
- C** Marumalarchi Dravida Munnetra Kazhagam
- D** Madras Dravida Munnetra Kazhagam

Answer: C

Question 88

Which city houses the headquarters of International Atomic Energy Agency (IAEA), the World's 'Atoms for Peace' organisation set-up in 1957 within the United Nations family ?

- A** Vienna (Austria)
- B** NewYork (USA)
- C** Tokyo (Japan)
- D** Geneva (Switzerland)

Answer: A

Question 89

The country which is also known as Persia is

- A** Iran
- B** Iraq
- C** Qatar
- D** Kuwait

Answer: A

Question 90

Which is the oldest Veda ?

- A** Atharveda
- B** Samveda
- C** Rigveda
- D** Yajurveda

Answer: C

Explanation:

The **Rigveda Samhita** is the oldest extant Indic text. It is a collection of 1,028 Vedic Sanskrit hymns and 10,600 verses in all, organized into ten books

Question 91

Who is the only batsman to score five centuries in a single edition of ICC World Cup ?

- A Rohit Sharma
- B Hardik Pandya
- C Clive Loyd
- D Virat Kohli

Answer: A

Question 92

To which field of literature is the 'Booker Prize' awarded every year ?

- A Fiction
- B Autobiography
- C Religion
- D Philosophy

Answer: A

Explanation:

The International Booker Prize is awarded annually for a single work of **fiction**, translated into English and published in the UK by a registered imprint. Both works of long form **fiction** and collections of short stories are eligible.

Question 93

The bank which merged with Capital First was

- A IDBI
- B ICICI
- C IDFC
- D SBI

Answer: C

Question 94

Which city is known for its 'Chicken embroidery' ?

- A Surat
- B Pune

- C Indore
- D Lucknow

Answer: D

Explanation:

Chikan embroidery is produced in the **city of Lucknow**, the capital of the state of Uttar Pradesh, India.

Question 95

..... is gained when a bullet is fired upwards vertically.

- A Synergy
- B Kinetic Energy
- C Energy
- D Potential Energy

Answer: D

Explanation:

If you fire a bullet vertically upwards, it may rise as high as 10000 feet or around 2.7 km. When the bullet is fired it has Kinetic energy and the direction is vertically upward. The bullet continues to **lose** Kinetic energy and **gains** potential energy at higher heights.

Therefore answer is option D

Question 96

The famous hill station 'Kodaikanal' is in

- A Nilgiri Hills
- B Palani Hills
- C Javadi Hills
- D Cardamom Hills

Answer: B

Explanation:

Kodaikanal is one of the very popular holiday destination hill resorts in South India. This hill station stands 7200 feet above sea level and is situated in upper **palani hills** of the **western ghats** near Madurai in Tamil Nadu. Kodaikanal is also popularly known as the prince of Hill Stations.

Question 97

What strait divides Morocco and Spain ?

- A Strait of Malacca
- B Strait of Hormuz
- C Strait of Bosphorus
- D Strait of Gibraltar

Answer: D

Question 98

Who won the Miss Universe Australia title in 2019 ?

- A** Sushmitha Rao
- B** Preethi Lamba
- C** Priya Serrao
- D** Kalpana Chawla

Answer: C

Question 99

The longest circle which can be drawn on the Earth's surface passes through :

- A** Tropic of Capricorn
- B** Tropic of Cancer
- C** Arctic circle
- D** Equator

Answer: D

Explanation:

The equator is the **circle** that is equidistant from the North Pole and South Pole. It divides the **Earth** into the Northern Hemisphere and the Southern Hemisphere. Of the parallels or **circles** of latitude, it is **the longest**, and the only 'great **circle**' (a **circle on the surface** of the **Earth**, centered on **Earth's** center).

Question 100

'Siamese Fighting Fish' is the national aquatic animal of which country ?

- A** Australia
- B** New Zealand
- C** Thailand
- D** Singapore

Answer: C

