## SSC GD

## Reasoning

Instructions
For the following questions answer them individually
Question 1
Find out the two signs to be interchanged to make the following equation correct.
$10+10 \times 10-10 \div 10=-89$

A - and $x$

B $\times$ and :

C + and $\times$

D - and :
Answer: B

Explanation:
Expression : $10+10 \times 10-10 \div 10=-89$
(A) : - and $\times$
L.H.S. $\equiv 10+10-10 \times 10 \div 10$
$20-10=10$
(B) : $\times$ and $\div$
L.H.S. $\equiv 10+10 \div 10-10 \times 10$
$10+1-100=-89=$ R.H.S
$>$ Ans - (B)

## Question 2

The statements below are followed by two conclusions labeled I and II. Assuming that the information in the statements is true, even if it appears at variance with generally establíshed facts, decide which conclusion(s) logically and definitely follow(s) from the information given in the statements.
Statements:
1.) All owls are horses.
2.) Some horses are hares.

Conclusions:
I. Some owls are hares.
II. Some hares are horses.

A Only conclusion II follows.

B Neither conclusion I nor conclusion II follows

C Both conclusions follow.

D Only conclusion I follows
Answer: A

## Explanation:

The venn diagram for above statements is :


## Conclusions:

I. Some owls are hares may or may not be true
II. Some hares are horses true

Thus, only conclusion II follows.
> Ans - (A)
Question 3
Select the option that will correctly replace the question mark (?) in the series.
$13,25,42,69$ ?

A 111

B 105

C 95

D 125
Answer: A

## Explanation:

The pattern followed is :
$13+12 \quad 25$
$25+17 \quad 42$
$42+27 \quad 69$
$69+42 \quad 111$
The difference between the numbers is 5,10,15 respectively.
> Ans - (A)
Question 4
The statements below are followed by two conclusions labeled I and II. Assuming that the information in the statements is true, even if it appears at variance with generally established facts, decide which conclusion(s) logically and definitely follow(s) from the information given in the statements.
Statements:
1.) All pens are frogs.
2.) Some crows are frogs.

Conclusions:
I. No pen is a crow.
II. Some pens are crows.

A Either conclusion I or conclusion II follows.

B Only conclusion II follows.

C Both conclusions follow.
D Only conclusion I follows.

Answer: A

Explanation:
The venn diagram for above statements is :


## Conclusions:

I. No pen is a crow may or may not be true
II. Some pens are crows may or may not be true

Thus, either conclusion I or II follows.
$>$ Ans - (A)

## Question 5

Select the option that will correctly replace the question mark (?) in the series. 112, 108, 92, 56, ?

A - 8

B -7

C -6

D 7
Answer: A

Explanation:
Squares of even numbers are subtracted.
112-2 $2^{2} 108$
108-4 $4^{2} \quad 92$
$92-6^{2} \quad 56$
$56-8^{2} \quad-8$
> Ans - (A)
Question 6
Choose the option in which the figure marked ' $X$ ' is embedded. (Rotation is not allowed)


X

A


B


C


D


Answer: C

## Explanation:

The question figure is embedded in following figure and is represented by red colour.

> Ans - (C)
Question 7
Choose the odd one out of the given options.

A CEM

B BHI

C DFH

D CFI
Answer: C

## Explanation:

Among the given options, only in DFH, there is no vowel, hence it is the odd one.
> Ans - (C)

## Question 8

Select the option that will correctly replace the question mark (?) in the series.
SHO, QJN, OLM, ?

A LWV

B LWL

C MNL

D MML
Answer: C

## Explanation:

Expression : SHO, QJN, OLM,?
The pattern followed in each letter of the terms is :
1st letter: $S(-2) \quad Q(-2) \quad \mathbf{O}(-2) \quad \mathbf{M}$
2nd letter: H (+2) J (+2) (+2) $\quad \mathbf{N}$
3rd letter: O (-1) N(-1) M (-1) L
Thus, missing term : MNL
> Ans - (C)
Question 9
Select a figure from amongst the four alternatives that when placed in the blank space (?) of figure X will complete the pattern. (Rotation is not allowed).


A


B


C


D


Answer: D

## Explanation:

If we complete the above figure, then the missing pattern is represented by the red colour.

$>$ Ans - (D)
Question 10
Select the option that is related to the third number in the same wayas the second number is related to the first number. 22: 88 :: 37 : ?

A 221

B 144

C 169

D 370
Answer: D

## Explanation:

The number on the left is multiplied by the sum of its digits.
Eg :- $22 \times(2+2)=22 \times 4=88$
Similarly, $37 \times(3+7)=37 \times 10=370$
$>$ Ans - (D)

## Question 11

Eight friends $A, B, C, D, E, F, G$ and $H$ are sitting around a circular table facing each other for a lunch. $A$ is opposite $D$ and third to the right of $B$. $G$ is between $A$ and $F . H$ is to theright of $A$. $E$ is between $C$ and $D$. Who is sitting between $B$ and $E$ ?

A D
B E

C F
D C
Answer: A

## Explanation:

A is opposite $D$ and third to the right of $B$, and $E$ is between $C$ and $D$.

$G$ is between $A$ and $F$. $H$ is to the right of $A$.


Thus, D is sitting between B and E .

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

## Question 12

Seven friends $0, P, Q, R, S, T$ and $U$ are watching a movie sitting in a row. $P$ is sitting at one extreme end. $Q$ is sitting to the immediate left of $S$. $P$ is sitting second to the right of $T$. $U$ is not sitting at any extreme end and is sitting between $R$ and $T$. Who is sitting between Q and R ?

A Q

B T

C R

D S
Answer: D

Explanation:
$P$ is sitting at one extreme end and second to the right of $T,>P$ is sitting at extreme right end.
$U$ is not sitting at any extreme end and is sitting between $R$ and $T,>U$ is sitting in the middle. _ _ $R U T$ _ $P$
Q is sitting to the immediate left of $\mathrm{S},>\mathrm{Q}$ is sitting at extreme left end.Arrangement is :

| $Q$ | $S$ | $R$ | $U$ | $T$ | $O$ | $P$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Thus, S is sitting between Q and R .
> Ans - (D)
Question 13
Select the option that is related to the third term in the same way as the second term is related to the first term. Ichthyology : Fishes :: Pedology :

A Shells

B Names

C Soil

D Moon
Answer: C

## Explanation:

Ichthyology is a branch of zoology that deals with fishes, similarly Pedology means the study of soils.
> Ans - (C)

## Question 14

Select the option that will correctly replace the question mark (?) in the given pattern.


A 343

B 7

C 37

D 49
Answer: A

Explanation:
Starting from 8 and moving anti clockwise, the given numbers are cubes of consecutive natural numbers.
Hence, the next number $\quad 7^{3}=343$
> Ans - (A)
Question 15
Choose the option that would follow next in the given figure series.


A


B


C


D


Answer: C

## Explanation:

In the given figure, the little gap between the two triangles is first pointing at top left, and then is moving in clockwise direction. Thus in
the next figure, it is facing top, then top right followed by right direction.
Thus, in the next figure, it will point towards bottom right as shown in third figure.

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\(>\) Ans - (C)
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Question 16
A square transparent sheet with a pattern is given. How will the pattern appear when the transparent sheet is folded along the dotted line?


A


B


C


D


Answer: D

## Question 17

J, K L, M, N and Oare six teachers. Each one teaches a different subject out of Hindi, English, Math, Science, Social Science and Arts, not necessarily in the same order. Each of them teaches on only one day, from Monday to Saturday, not necessarily in the same order.

J teaches Science on Wednesday. O teaches Math second after J. K teaches on the first day of the week, but teaches neither Hindi nor English. M teaches English before N and L teaches Arts before J. Who teaches on Tuesday?

A M

B K

C L

D N
Answer: C

## Explanation:

J teaches Science on Wednesday. O teaches Math second after J, > O teaches on Friday.
L teaches Arts before $J$, >L teaches on Tuesday.
K teaches on the first day of the week, but teaches neither Hindi nor English, >K teaches Social Science.
M teaches English before N, > N teaches Hindi on the last day.

| Day | Teacher | Subject |
| :---: | :---: | :---: |
| Monday | K | Social Science |
| Tuesday | L | Arts |
| Wednesday | J | Science |
| Thursday | M | English |
| Friday | O | Maths |
| Saturday | N | Hindi |

Thus, L teaches on Tuesday.
> Ans - (C)

## Question 18

Choose the option that most closely resembles the mirror image of the given figure when mirror is placed at the right side.


A


B


C


D


Answer: A

## Explanation:

When a mirror is placed at the right side, the shape of the circle will not change, hence the last two options are eliminated.
Also, the position of the stars will be shifted towards right side, hence first option is the correct image.
> Ans - (A)

Question 19
In a certain code, POTATO is written as AOOPTT. How will BARBER be written in that code?

A ABBERR

B ABBRER

C ARBERB

D ABRBER
Answer: A

Explanation:
POTATO is written as AOOPTT.
The pattern followed is that the letters are arranged in ascending order according to the English alphabetical order. Hence BARBER is written as ABBERR
$>$ Ans - (A)

Question 20
Choose the odd number out of the given options.

A 97

B 89

C 83

D 63
Answer: D

## Explanation:

Except for 63 , all are prime numbers, hence 63 is the odd one.
> Ans - (D)

## Question 21

Select the Venn diagram that best represents the given set of classes.
Wheat, Crops, Farmers

A


B


C


D


Answer: C

## Explanation:

All wheats comes under the category of crops, and farmers being proper noun are different from them, hence the venn diagram that best describes above relationship is :

> Ans - (C)

## Question 22

Choose the odd one out of the given options.

A Yellow

B Pink

C Violet

D Orange
Answer: B

## Explanation:

All except Pink are the colours seen in a rainbow, hence pink is the odd one.
> Ans - (B)

## Question 23

Select the option that is related to the third term in the same way as the second term is related to the first term.
Achieve : Fail :: Gloomy : ?

A Chalk

B Chant
C Chase

D Cheerful
Answer: D

## Explanation:

In the given pair, Fail is the opposite of Achieve, similarly antonym of gloomy is cheerful.
> Ans - (D)
Question 24
Select the option that is related to the third term in the same wayas the second term is related to the first term.
BFH : DHJ :: GKM : ?

A MKI

B IMO

C KMG

D MKG
Answer: B

Explanation:
Expression BFH: DHJ :: GKM :?
The pattern followed is :

| B | F | $\mathbf{H}$ |
| :---: | :---: | :---: |
| $(+2)$ | $(+2)$ | $(+2)$ |
| D | $\mathbf{H}$ | $\mathbf{J}$ |

Similarly, for GKM : IMO

| $\mathbf{G}$ | K | $\mathbf{M}$ |
| :---: | :---: | :---: |
| $(+2)$ | $(+2)$ | $(+2)$ |
| $\mathbf{I}$ | M | 0 |

> Ans - (B)

## Question 25

In a certain code, SAW is written as 38 . How will FEED be written in that code?

A 70

B 45

C 88

D 30
Answer: C

## Explanation:

If the alphabets are of the English alphabetical order are written in reverse order and numbered sequentially, i.e. Z 1, Y 2, X 3 , W 4 and so on.

Thus, SAW $8+26+4 \quad 38$
Similarly, FEED $\quad 21+22 \div 22+23=88$
> Ans - (C)

## General knowledge

Instructions
For the following questions answer them individually
Question 26
Which articles of the Indian Constitution cover the fundamental right against exploitation?

A

B Articles 19-22

C Articles 14-18

D Articles 23-24
Answer: D

## Question 27

Where and against which country did Sachin Tendulkar score his 100th century?

A Perth stadium, against West Indies

B Shere Bangla stadium, against Bangladesh
C Edenpark, against New Zealand

D Sydney cricket ground, against Australia
Answer: B

Question 28
In which state is Kaziranga National Park situated?

A Assam

B Madhya Pradesh

C Rajasthan

D Bihar
Answer: A

Question 29
Which of these languages is declared 'classical' by the Government of India?

A Marathi

B Hindi

C Odia

D Pali
Answer: C

## Question 30

Arrange the following events in correct chronology:

1) Champaran Satyagraha against indigo plantation
2) Starting of non-cooperation Khilafat movement
3) Rowlatt Satyagraha
4) Arrival of Simon commission in India

A 1-3-2-4

B 3-4-2-1

C $4-2-1-3$

D 1-2-3-4
Answer: A

## Question 31

What was the amendment done to the Indian Constitution by $52^{\text {nd }}$ amendment done in 1985 ?

A Anti-defection law was included
B Amendment to the Union and State lists with respect to raising of taxes

C The words 'socialist secular added to the preamble

D Formation of Sikkim as a state within the Indian Union
Answer: A

## Question 32

The Metturdam is built on which river and is in which state?

A Tungabhadra river, Karnataka
B Kali river, Karnataka

C Kaveri river, Tamilnadu

D Narmada river, Madhya Pradesh
Answer: C

## Question 33

Which of these personalities is popularly known as the 'father of the Indian film industry'?

A Amitabh Bachehan
B Dadasaheb Phalke
C Dev Anand

D Rajesh Khanna
Answer: B

## Question 34

The silver coin introduced by Sher Shah Suri was called:

A Tankah
B Rupiya
c Mohar
D Dinar
Answer: B

Question 35
The Kani Shaw! handicraft variety belongs to which of the following states of India?

A Jammu \& Kashmir

B Arunachal Pradesh

C Himachal Pradesh

D Uttar Pradesh
Answer: A

Question 36
Which of the following is not a term associated with credit?

A Necessary documents

B Collateral

C Interest rate
D Stamp by finance minister
Answer: D

## Question 37

Which of the following competitions is not associated with Indian football?

A Ranji Trophy

B Federation Cup

C Santosh Trophy
D Durand Cup
Answer: A

## Question 38

Scurvy is caused by the deficiency of which vitamin?

A Vitamin C

B Vitamin A

C Vitamin D

D Vitamin K

Answer: A

## Question 39

In which Indian state is bamboo drip irrigation system a very old practice?

A Chattisgarh
B Meghalaya

C Telangana

D Maharashtra
Answer: B

## Question 40

Which is the highest quality hard coal of the below?

A Peat
B Lignite
C Bituminous

D Anthracite
Answer: D

## Question 41

The Treaty of Purandar was signed between:

A Afghans and Portuguese
B Nawab of Bengal and Rajputs
C Eastern Gangas and Cholas
D Mughals and Marathas
Answer: D

## Question 42

Which of the motions is passed in the parliament to remove the President of India?

A Impeachment Motion

B Censure Motion

C Cut Motion

D No Confidence Motion
Answer: A

## Question 43

Which of these is an organisation that promotes sustainable management and conservation of tropical forests?

A United Nations Forum on Forests

B Greenpeace

C World Wide Fund for Nature

D International Tropical Timber Organization
Answer: D

## Question 44

Which of the following issues currency notes in India?

A PNB

B RBI


What is the neutral value of the pH scale?

A Equal to 14
B Less than 7

C Equal to 7
D Above 7
Answer: C

## Question 46

Bananas turn brownin colour because:

A an enzyme converts starch into sugar
B the air reacts with the enzymes in the banana
C Bisphosphonates reacts with the enzymes in the banana

D an enzyme converts sugarinto starch
Answer: B

## Question 47

On which of the below can an excise duty charged?

A A company s revenue
B Export of goods and services
C Import of goods and services

D Goods manufactured
Answer: D

## Question 48

Who is the author of the book 'India's Export Trends and Prospects for Self-Sustained Growth'?

A Shashi Tharoor

B Manmohan Singh

C Atal Bihari Vajpayee
D Narendra Modi
Answer: B

## Question 49

In which Indian state is the Hornbill festival celebrated?

A Nagaland
B Manipur
C Sikkim

D Tripura
Answer: A

## Question 50

What is the name of Malala Yousafzai's biopic?

A The Aviator
B Frida

C The social network

D Gul Makai
Answer: D

## Quant

Instructions
For the following questions answer them individually

Question 51
What is the median of the given data?
$2,3,2,3,6,5,4,7$

A 4

B 4.5

C 3.5

D 3
Answer: C

## Explanation:

Data in ascending order $2,2,3,3,4,5,6,7$
Thus, middle two terms (since there are even number of terms) 3,4
Thus, median $\quad{ }_{2}^{3}=3.5$
> Ans - (C)

## Question 52

A sum becomes five times of itself in 8 years at simple interest. What is therate of interest per annum?

A 37.5\%

B $25 \%$

C 62.5\%

D $50 \%$
Answer: D

Explanation:
Let initial sum Rs. $x$, thus amount after 8 years Rs. $5 x$
> Simple interest $\begin{gathered}P \times r \times \\ 100\end{gathered}$
$>{ }^{x \times r \times 8}=4 x$
$>r=\stackrel{400}{8}=50 \%$
> Ans - (D)
Question 53
The table given below shows the marks obtained by 4 students in 5 subjects. The maximum marks of each subject is 100 .

| Subjects | Students |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | P1 | P2 | P3 | P4 |
| S1 | 89 | 100 | 92 | 91 |
| S2 | 62 | 52 | 72 | 37 |
| S3 | 57 | 55 | 70 | 65 |
| S4 | 76 | 85 | 76 | 58 |
| S5 | 85 | 70 | 66 | 62 |

What is the difference in the average marks per student for subjects S5 and S2?

A 12
B 15

C 17.5

D 19.5

## Answer: B

## Explanation:

Difference in the average marks per student for subjects S5 and S2

$$
\begin{aligned}
& (85+70+66+62)-(62+52+72+37) \\
& 23+18-6+25=60 \\
& >
\end{aligned}
$$

## Question 54

The length breadth and height of a cuboid are in the ratio $4: 3: 2$. If the volume of cuboid is 1536 cm , then what will be the total surface area of the cuboid?

A $868 \mathrm{~cm}^{2}$

B $416 \mathrm{~cm}^{2}$

C $624 \mathrm{~cm}^{2}$

D $832 \mathrm{~cm}^{2}$
Answer: D

Explanation:
Let length breadth and height of the cuboidhare $4 x, 3 x, 2 x \mathrm{~cm}$ respectively.
Volume of cuboid $l b h$
$>4 x \times 3 x \times 2 x=1536$
$>x^{3}={ }_{24}^{1536}=64$
$>x=\sqrt[3]{64}=4$
Thus, sides are 16,12 and 8 cm
$\therefore$ Total surface area of cuboid $2(l b+b h+l)$
$2[(16 \times 12)+(12 \times 8)+(8 \times 16)]$
$2 \times(192+96+128)$
$2 \times 416=832 \mathrm{~cm}^{2}$
$>$ Ans - (D)

## Question 55

The length, breadth andheight of a solid cuboid is $20 \mathrm{~cm}, 16 \mathrm{~cm}$ and 12 cm respectively. If cuboid is melted to form identical cubes of side 4 cm , then what will be the number of identical cubes?

A 56

B 72
C 90

D 60
Answer: D

## Explanation:

Number of identical cubes formed ratio of volume of cuboid to volume of cube

$$
\begin{aligned}
& \stackrel{l b h}{a^{3}} \\
& 20 \times 16 \times 12 \\
& \quad 4 \times 4 \times 4 \\
& 5 \times 4 \times 3=60
\end{aligned}
$$

> Ans - (D)

## Question 56

A bike covers a certain distance at a speed of $56 \mathrm{~km} / \mathrm{hr}$ in 16 hours. How much time it will take to cover the same distance at the speed of $64 \mathrm{~km} / \mathrm{hr}$ ?

A 14 hr

B 18 hr

C 16 hr

D 12 hr

## Answer: A

## Explanation:

Distance covered at a speed of $56 \mathrm{~km} / \mathrm{hr}$ in 16 hours
Time taken to cover same distance at $64 \mathrm{~km} / \mathrm{hr}$

$$
{ }_{4}^{56}=14 \text { hours }
$$

> Ans - (A)
Question 57
What is the value of $(3 \times 1500 \div 40+5 \div 7$ of 70$)$ ?

A $\quad 433$

B 435

C $\quad 451$

D $\quad \begin{gathered}473 \\ 4\end{gathered}$
Answer: C

Explanation:
Expression: $\left(3 \times 1500 \div 40+5 \div{ }_{7}^{2}\right.$ of 70$)$

$$
\begin{aligned}
& \left(3 \times{ }_{40}^{1500}\right)+(5 \div 20) \\
& { }_{4}^{450}+{ }_{4}^{1}={ }_{4}^{451} \\
& >\text { Ans - (C) }
\end{aligned}
$$

## Question 58

Curved surface area of a cylinder is $110 \mathrm{~cm}^{2}$. If the height of cylinder is 5 cm , then what will be the diameter of its base?

A 14 cm

B 7 cm

C 3.5 cm

D 10.5 cm
Answer: B

Explanation:
Let radius of cylinder $\quad r \mathrm{~cm}$ and height $h=5 \mathrm{~cm}$
Curved surface area of cylinder $\quad 2 \pi r h=110$
$>2 \times{ }_{7}^{22} \times r \times 5=110$
$>r={ }_{110}^{110} \times{ }_{2}^{7}=3.5 \mathrm{~cm}$
$\therefore$ Diameter $2 \times 3.5=7 \mathrm{~cm}$
$>$ Ans - (B)

## Question 59

Mohit and Sumit start a business with investment of 74000 and $\bar{F} 96000$ respectively. If at the end of the year they earn profit in the ratio of $5: 8$, then what will be ratio of the time period for which they invest their money?

A 37:32

B 13:18

C 25:32

D $30: 37$
Answer: D

## Explanation:

Let the time period that they invested be $x$ and $y$ years respectively.
According to ques,
$74 \times x$
$>96 \times y={ }_{8}^{5}$
$>{ }^{x} y={ }_{5}^{5} \times{ }_{74}^{96}$
$\begin{gathered}\quad x \\ > \\ y\end{gathered}=\begin{array}{r}30 \\ 37\end{array}$
$\therefore$ Required ratio 30:37
> Ans - (D)

## Question 60

The value of discount of $18 \%$ on first article is equal to the value of discount of $13 \%$ on second article. What is the ratio of the marked price of two articles?

A 17:24

B $39: 50$
C $13: 18$

D 13:19
Answer: C

## Explanation:

Let marked price of both articles be Rs. $x$ and Rs. $y$ respectively.
According to ques,
$\begin{gathered}18 \\ >100\end{gathered} \times x=\begin{gathered}13 \\ 100 \times y\end{gathered}$

| $x$ |  |
| ---: | :--- |
| $>$ | 13 |

$\therefore$ Ratio of the marked price of two articles $13: 18$
> Ans - (C)

## Question 61

What will be the Highest Common Factor of 5, 10 and 20?

A 5

B 10

C 1

D 15
Answer: A

Explanation:
Factorization of $5=5^{1}$
$10=2^{1} \times 5^{1}$
$20=2^{2} \times 5^{1}$
$\therefore$ H.C.F. 5
$>$ Ans - (A)
Question 62
The average weight of 12 boxes is 63 kg . If four boxes having an average weight of 70 kg are removed, then what will be new average weight of the remaining boxes?

A 60 kg

B 59 kg

C $\quad 60.5 \mathrm{~kg}$
D $\quad 59.5 \mathrm{~kg}$
Answer: D

## Explanation:

Total weight of 12 boxes $63 \times 12=756 \mathrm{~kg}$

Weight of 4 boxes that are being removed $70 \times 4=280 \mathrm{~kg}$
$\therefore$ New average $\quad 7568^{280}$

$$
\begin{aligned}
& { }_{8}^{476}=59.5 \mathrm{~kg} \\
& >\text { Ans - (D) }
\end{aligned}
$$

## Question 63

F alone can complete a work in 24 days and $G$ alone can complete the same work in 32 days. $F$ and $G$ start the work together but $G$ leaves the work 8 days before the completion of work. In how many days the total work will be completed?

A ${ }_{5}^{130}$ days
B $\quad{ }_{7}^{106}$ days
C $\quad{ }_{7}^{114}$ days
D $\quad{ }_{7}^{120}$ days
Answer: D

## Explanation:

Let total work to be done L.C.M. $(24,32) \quad 96$ units

$$
\text { > F's efficiency } \quad \begin{aligned}
& 96 \\
& 24
\end{aligned}=4 \text { units/day and G's efficiency } \quad 3 \text { units/day }
$$

Let the work is finished in $t$ days, then F alone worked for 8 days, and F and G together worked for $(t-8)$ days
According to ques,
$>7(t-8)+(4 \times 8)=96$
$>7 t-56+32=96$
$>t={ }_{7}^{120}$ days
> Ans - (D)

## Question 64

Working 2 hours in a day, P can complete a work in 10 days and working 5 hours in a day, Q can complete the same work in 6 days. Working 3 hours in a day, in how many days both P and Q together can complete the same work?

A 3 days

B 6 days

C 4 days
D 5 days
Answer: C

## Explanation:

P complete work in 20 hours and Q complete in 30 hours.
Let total work to be done L.C.M. $(20,30) 60$ units
> P's efficiency $\quad{ }_{20}^{60}=3$ units/hr and Q's efficiency 2 units $/ \mathrm{hr}$
Now, if they work 3 hours in a day, work done by them $3 \times(3+2)=15$ units
$\therefore$ Number of days taken $\quad \begin{aligned} & 60 \\ & 15\end{aligned}=4$ days
> Ans - (C)

Question 65
Mohit purchases eggs at the rate of ₹ 3 per egg and sells them at the rate of $₹ 5$ per egg. On selling 35 eggs, what will be the profit percentage?

A 33.33\%

B $40 \%$

C 60\%

D 66.67\%
Answer: D

Explanation:
Profit \% on selling 1 egg Profit \% on selling 35 eggs
> Profit \% $\left.\begin{array}{cc}\binom{5}{3} \\ 3\end{array}\right) \times 100$
$66.67 \%$
$>$ Ans - (D)

## Question 66

A bag has white and yellow balls in the ratio $7: 11$ respectively. If the total number of balls is 108 , then how many balls are yellow?

A 66

B 44

C 64

D 77
Answer: A

## Explanation:

Ratio of white and yellow balls 7:11
$>$ Number of yellow balls
$11 \times 6=66$
> Ans - (A)

## Question 67

Varun purchases 75 articles for $₹ 3150$ and sells them at a profit equal to the cost price of 15 articles. What will be the selling price of one article?

A 42
B 51.5

C 50.4
D 46.5

Answer: C

## Explanation:

Cost price of 75 articles Rs. 3150 and cost price of 15 articles ${ }_{5}^{3150}=R s .630$
Let selling price of 75 articles Rs. $75 x$
According to ques,
$>75 x-3150=630$
$>75 x=630+3150=3780$
$>x={ }^{3780}=50.4$
$\therefore$ Selling price of 1 article Rs. $\mathbf{5 0 . 4}$
$>$ Ans - (C)

## Question 68

The average age of students is $A$ and the average age of teachers is $B$. The number of the students is 45 times of the number of teachers. What is average age of students and teachers together?

A $45 A_{7} 8 B$

B $\quad \begin{array}{r}45 A \\ \end{array}$

C $\quad \begin{array}{r}45 A \\ 8\end{array}$

D $\quad \underset{23}{ } \quad 4 B$
Answer: B

Explanation:
Let total teachers is $x$, and thus total number of students $45 x$
$>$ Total age of students $45 A x$ and total age of teachers $B x$

```
\(\therefore\) Average
\(45 A x \quad B x\)
\(x \quad 45 x\)
\(45 A B\)
```

$>$ Ans - (B)
Question 69
The table given below shows the number of students enrolled in different courses of different colleges.

| Colleges | Courses |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | B1 | B2 | B3 | B4 |
| C1 | 65 | 56 | 65 | 103 |
| C2 | 68 | 58 | 71 | 112 |
| C3 | 72 | 54 | 88 | 125 |
| C4 | 76 | 52 | 75 | 120 |
| C5 | 69 | 60 | 79 | 126 |

What is the difference in the total number of students enrolled in colleges C 3 and C 4 ?

A 13

B 11

C 12

D 16
Answer: D

## Explanation:

Difference in the total number of students enrolled in colleges C3 and C4

$$
\begin{aligned}
& (72+54+88+125)-(76+52+75+120) \\
& -4+2+13+5=16
\end{aligned}
$$

$>$ Ans - (D)

## Question 70

Ram, Sita and Salma invest $₹ 16000$, $₹ 22000$ and $₹ 18000$ respectively to start a business. If the profit at the end of the year is $₹$ 26600, then what is share of Ram?

A ₹ 10450
B ₹ 8550

C ₹ 9650

D ₹ 7600
Answer: D

## Explanation:

Ratio of amount invested $\quad(16,000: 22,000: 18,000)$
$8: 11: 9$
> Share of Ram $\left.\quad \begin{array}{lll}8 & 11 & 9\end{array}\right) \times 26,600$
$8 \times 950=$ Rs. 7600
$>$ Ans - (D)
Question 71
A student got $24 \%$ marks in an exam and he failed by 56 marks. If he got $60 \%$ marks, then his marks are 70 more than the minimum passing marks. What is the maximum marks for the exam?

A 350
B 260

C 380

D 280
Answer: A

## Explanation:

Let maximum marks in the exam $100 x$ and minimum passing marks $y$
> Minimum passing marks $\quad y=24 x+56$-------------(i)
Also, $y=60 x-70-$--------------(ii)
Comparing both the equations, we get :
$>24 x+56=60 x-70$
$>36 x=70+56=126$
$>x={ }_{36}^{126}=3.5$
$\therefore$ Maximum marks $100 \times 3.5=350$
> Ans - (A)

## Question 72

What is the value of $\left[75 \div 25 o f\left(\begin{array}{l}4 \\ 3\end{array}-\frac{1}{2}+\stackrel{1}{6}\right)\right]$ ?

A $\quad \begin{gathered}5 \\ 6\end{gathered}$

B 3

C $\quad \begin{array}{r}7 \\ \hline\end{array}$

D 5
Answer: B

## Explanation:

Expression: $\left[75 \div 250 f\left(\begin{array}{l}4 \\ 3\end{array}-\stackrel{1}{2}+{ }_{6}^{6}\right)\right]$

$$
\left[75 \div 25 \times\left(\begin{array}{ccc}
8 & 3 & 1 \\
& 6 &
\end{array}\right)\right]
$$

$$
75 \div(25 \times 1)
$$

${ }_{25}^{75}=3$
> Ans - (B)

## Question 73

Raju travels at ${ }_{4}^{3}$ of his usual speed and reaches his office 24 minutes late than his usual time. If Raju travels at his usual speed, then what will be the time taken by him to reach his office?

A 64 minutes

B 72 minutes

C 48 minutes

D 56 minutes
Answer: B

## Explanation:

Let usual speed $4 \mathrm{~m} / \mathrm{min}$ and usual time taken $t$ minutes
> Raju's new speed $3 \mathrm{~m} / \mathrm{min}$
Also, speed is inversely proportionally to time, according to ques :
${ }{ }^{3} 4=t^{t}{ }_{24}$
$>3 t+72=4 t$
$>t=72$
$\therefore$ Usual time taken 72 minutes
> Ans - (B)

Question 74
Compound interest received on a sum in $5^{\text {th }}$ year is ₹ 1200 (interest is compounded annually).If the rate of interest is $\mathbf{2 2 . 5}$ \% per annum, then what will be the interest in 6th year?

A ₹ 1470

B ₹ 1270

C ₹ 1200

D ₹ 270
Answer: A

Explanation:
Interest in 6th year, interest being compounded annually $1200+\left(\begin{array}{l}22.5 \\ 100\end{array}{ }^{2} 1200\right)$
$1200+270=$ Rs. 1470
$>$ Ans - (A)
Question 75
The table given below shows the production of rice and the area under rice cultivation of country for 5 consecutive years Y1, Y2, Y3, Y4 and Y5.

| Year | Rice <br> Production <br> (in 1000 $\mathbf{~ g}$ ) | Area Under Rice <br> Cultivation(in <br> 100 square meter) |
| :---: | :---: | :---: |
| Y1 | 520 | 130 |
| Y2 | 570 | 190 |
| Y3 | 680 | 150 |
| Y4 | 720 | 180 |
| Y5 | 850 | 170 |

What is the yield per square meter for the year Y3?

A 37.66 kg
B $\quad 63.33 \mathrm{~kg}$
C $\quad 45.33 \mathrm{~kg}$
D $\quad 52.50 \mathrm{~kg}$
Answer: C

Explanation:
Yield per square meter for the year Y3

$$
\begin{aligned}
& 680 \\
& 150 \times 1000 \\
&>=45.33 \mathrm{~kg} \\
&>\text { Ans }-(\mathrm{C})
\end{aligned}
$$

## English

Instructions
For the following questions answer them individually

Question 76
Select the most appropriate word to fill in the blank.
We should always remember not to $\qquad$ any problems and issues that may affect our career in any organisation.

A affect

B undertake

C inflict

D create
Answer: D

## Question 77

Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select No Improvement.
After you will return from Bangalore, I will come and meet you.

A After you will be returning from
B No improvement

C After you returned from
D After you return from
Answer: D

Question 78
Select the antonym of the given word AWKWARD

A Problematic

B Convenient

C Difficult

D Matchless
Answer: B

## Instructions

In the following passage some words have been deleted. Fill in the blanks with the help of the alternatives given.
Passage:
Seafood exports from India $\qquad$ (1) yet to gather momentum as $\qquad$ (2) prices, adverse weather conditions and $\qquad$ continue to affect stocking of shrimps, which account for about threefourths of the $\qquad$ (4) from export of marine products. This apart, seafood exporters are facing $\qquad$ .(5) from the Seafood Import Monitoring Programme (SIMP) being implemented by the USandit is one of the largest buyers of Indian shrimps.

## Question 79

Select the most appropriate option that will fill in the blank number 1.

A be

B has

C are

D was
Answer: C

## Question 80

Select the most appropriate option that will fill in the blank number 2.

A low
B little

C small

D high
Answer: D

## Question 81

Select the most appropriate option that will fill in the blank number 3.

A diseases

B viruses
C bugs
D maladies
Answer: A

## Question 82

Select the most appropriate option that will fill in the blank number 4.

A takings

B income

C cash

D revenue
Answer: D

## Question 83

Select the most appropriate option that will fill in the blank number 5 .

A rapture
B pleasure

C capture

D pressure
Answer: D

Instructions
For the following questions answer them individually

## Question 84

From the given options, identify the segmentin the sentence which contains the grammatical error.
The government's interim budget from this financial year contained several measures which have the forthcoming elections in mind.

A from this financial year

B Government s interim budget
C which have the

D contained several measures
Answer: A

## Question 85

Select the most appropriate option to substitute the underlined segmentin the given sentence. If there is no need to substitute it, select No Improvement.
While learning to drive, one of the most of important things is to know the traffic rules first.

A No improvement

B When learned to drive

C When learn driving

D When learn to drive
Answer: A

## Question 86

From the given options, identify the segment in the sentence which contains the grammatical error Soon after returning to office, the CBI chief transfer five officers.

A returning to office,

B the CBI chief

C transfer five officers

D Soon after
Answer: C

## Question 87

Select the correctly spelt word.

A Substitushion

B Substitution
C Substituition

D Sabstitution
Answer: B

## Question 88

Select the option that means the same as the given idiom.
To cut both ends

A To reject all arguments
B To argue in support of both sides
C To consider the truth and untruth

D To argue against both sides of an issue
Answer: B

## Question 89

Select the antonym of the given word.
EUPHORIA

A Folklore
B Lethargy
C Song

D Music
Answer: B

Question 90
Select the correctly spelt word.

A Magnanemous
B Magnanomous

C Magnanimous
D Magnonimus
Answer: C

## Question 91

From the given options, identify the segment in the sentence which contains the grammatical error.
The Builders' Associations want GST exemption for government projects which have already proposed.

A which have already proposed.
B
want GST exemption

C for government projects
D The Builders Associations
Answer: A

## Question 92

Select the most appropriate option tofill in the blank.
Is it true that the students from the Space Research Centre $\qquad$ this evening?

A are arriving
$B$ is arriving

C has arriving

D have arriving
Answer: A


Select the most appropriate option to substitute the underlined segment in the given sentence.If there is no need to substitute it, select No Improvement.
These flowers smell sweetly and are sold at high prices in the market.

A These flowers will smell sweetly

B These flowers smelt sweetly

C No improvement

D These flowers smell sweet
Answer: D

## Question 94

Select the word which means the same as the group of words given.
One who studies antique things

A Historian

B Sociologist

C Archaeologist
D Antiquarian
Answer: D

## Question 95

Select the synonym of the given word.
INCORRIGIBLE

A Reliable
B Unwise

C Intelligible

D Unalterable
Answer: D

## Question 96

Select the most appropriate word to fill in the blank.
Although I was $\qquad$ of his newplans for growth of the company, I relied on him as he was very honest.

A persuaded

B committed

C convinced

D sceptical


Answer: D

Question 97
Select the word which means the sameas the group of words given.
One who offers one's services without anything in return

A Volunteer

B Entrepreneur

C Businessman

D Investor
Answer: A

Question 98
Select the synonym of the given word.
DISHEVELLED

A Unsafe

B Unclean

C Uncertain

D Untidy
Answer: D

Question 99
Choose the correct meaning of the following idiom.
To get away with

A To escape from something
B To go away from home

C To finish an assignment
D To go to an unknown place
Answer: A

Question 100
Select the most appropriate option to fill in the blank.
.................. example helps understand a concept better.

A Few
B A

C An

D One


Answer: C

