# 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.

$$10 + 10 \times 10 - 10 \div 10 = -89$$

- $\mathbf{A}$  and  $\times$
- $\mathbf{B} \times \text{and} \div$
- $\mathbf{C}$  + and  $\times$
- D and  $\div$

Answer: B

## **Explanation:**

Expression :  $10 + 10 \times 10 - 10 \div 10 = -89$ 

(A) : 
$$-$$
 and  $\times$ 

$$\text{L.H.S.} \equiv 10+10-10\times10\div10$$

$$20 - 10 = 10$$

(B):  $\times$  and  $\div$ 

$$\text{L.H.S.} \equiv 10+10 \div 10-10 \times 10$$

$$10 + 1 - 100 = -89 = \text{R.H.S.}$$

> 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 established 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

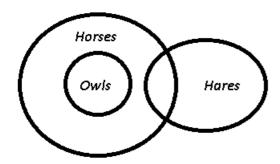
**Conclusions:** 

- 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 25

25 + 17 42

42 + 27 69

69 + 42 111

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.

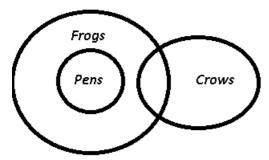
**Conclusions:** 

- 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.

## **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:**

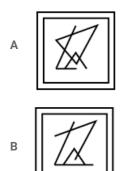
Squares of even numbers are subtracted.

- $112 2^2$  108
- $108 4^2$  92
- $92 6^2$  5
- 56 8<sup>2</sup> -
- > Ans (A

## **Question 6**

Choose the option in which the figure marked 'X' is embedded. (Rotation is not allowed)









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 :

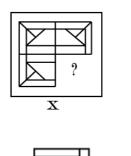
1st letter: S (-2) Q (-2) O (-2) **M**2nd letter: H (+2) J (+2) (+2) **N**3rd letter: O (-1) N (-1) M (-1) **L** 

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).







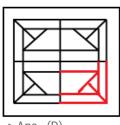




Answer: D

# **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 :- 
$$22 imes (2+2) = 22 imes 4 = 88$$
 Similarly,  $37 imes (3+7) = 37 imes 10 = 370$ 

> 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 the right of A. E is between C and D. Who is sitting between B and E?



**B** E

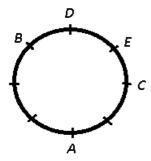
C

**D** (

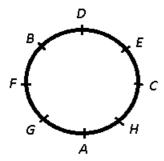
Answer: A

# **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.

> Ans - (A)

## **Question 12**

Seven friends O, 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
- ВТ
- C F
- D 9

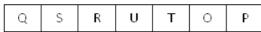
Answer: D

# **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 S, > Q is sitting at extreme left end. Arrangement is :



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

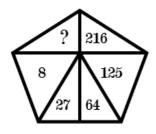
#### **Explanation:**

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
- В .
- **C** 37
- **D** 49

Answer: A

# **Explanation:**

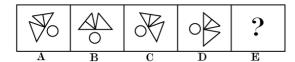
Starting from 8 and moving anti clockwise, the given numbers are cubes of consecutive natural numbers.

Hence, the next number  $7^3=343$ 

> Ans - (A)

# **Question 15**

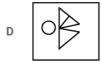
Choose the option that would follow next in the given figure series











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.

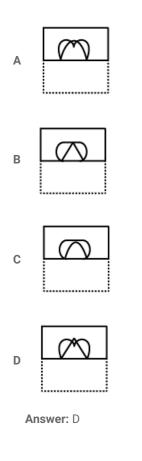
Thus, in the next figure, it will point towards bottom right as shown in third figure.

> Ans - (C)

## **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?







J, K L, M, N and O are 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	М	English
Friday	0	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.



















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:**

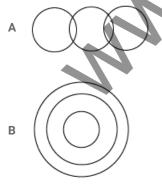
Except for 63, all are prime numbers, hence 63 is the odd one

> Ans - (D)

# **Question 21**

Select the Venn diagram that best represents the given set of classes.

Wheat, Crops, Farmers







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:

В	F	Н
(+2)	(+2)	(+2)
D	Н	J

Similarly, for GKM: IMO

G	K	М
(+2)	(+2)	(+2)
ı	М	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 38

Similarly FFFD 21 + 22 + 23 = 88

> Ans - (3)

# **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 Articles 29-30

- 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  $\ 52^{nd}$  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 Bachchan
- **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

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
- C SBI
- D ICICI

Answer: B

# **Question 45**

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 brown in 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 
$$\begin{pmatrix} 3 & 4 \\ 2 & = 3.5 \end{pmatrix}$$

> Ans - (C)

# **Question 52**

A sum becomes five times of itself in 8 years at simple interest. What is the rate 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. 5x

> Simple interest 
$$P \times r \times t = 4x$$
  
>  $100 = 4x$ 

$$> r = {}^{400}_{8} = 50\%$$

> Ans - (D)

#### Ouestion 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	Р3	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

$$(85+70+66+62)-(62+52+72+37)$$
 
$$23+18-6+25=60$$
 > Required average 
$$^{60}_{\ 4}=15$$

# > Ans - (B)

## **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  $cm^2$
- **B** 416  $cm^2$
- C 624  $cm^2$
- **D** 832  $cm^2$

Answer: D

# **Explanation:**

Let length breadth and height of the cuboid are 4x, 3x, 2x cm respectively.

Volume of cuboid  $\ lbh$ 

> 
$$4x \times 3x \times 2x = 1536$$
  
>  $x^3 = {}^{1536}_{24} = 64$   
>  $x = \sqrt[3]{64} = 4$ 

Thus, sides are 16, 12 and 8 cm

 $\therefore$  Total surface area of cuboid 2(lb+bh+l)

$$2[(16 \times 12) + (12 \times 8) + (8 \times 16)]$$
  
 $2 \times (192 + 96 + 128)$   
 $2 \times 416 = 832 \ cm^2$   
> Ans - (D)

## **Question 55**

The length, breadth andheight of a solid cuboid is 20 cm, 16 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

- **R** 72
- **C** 90
- **D** 60

Answer: D

## **Explanation:**

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

$$lbh \atop a^3$$

 $\substack{20\times16\times12\\4\times4\times4}$ 

$$5 \times 4 \times 3 = 60$$

> Ans - (D)

# **Question 56**

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

- **A** 14 hr
- **B** 18 hr
- C 16 hr
- **D** 12 hr

Answer: A

# **Explanation:**

Distance covered at a speed of 56 km/hr in 16 hours  $(56 \times 16)$  km

Time taken to cover same distance at 64 km/hr

$$^{56}_{\phantom{0}4}=14\,\mathrm{hours}$$

> Ans - (A)

# Question 57

What is the value of  $(3 \times 1500 \div 40 + 5 \div 70f70)$ ?

- A 43
- B 435
- c 451
- **D** 473

Answer: C

# **Explanation:**

Expression :  $(3 \times 1500 \div 40 + 5 \div {}^2 7 \circ f70)$ 

$$(3 imes {}^{1500}_{40}) + (5 \div 20)$$

$${}^{450}_4 + {}^{1}_4 = {}^{451}_4$$

> Ans - (C)

## **Question 58**

Curved surface area of a cylinder is 110  $\,cm^2$ . 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  $\ r \ \mathrm{cm}$  and height  $\ h = 5 \ \mathrm{cm}$ 

Curved surface area of cylinder  $2\pi rh=110$ 

> 
$$2 \times {\overset{22}{7}} \times r \times 5 = 110$$

> 
$$r=rac{110}{110} imesrac{7}{2}=3.5\,\mathrm{cm}$$

 $\therefore$  Diameter  $2 imes 3.5 = 7 \, \mathrm{cm}$ 

> Ans - (B)

## **Question 59**

Mohit and Sumit start a business with investment of ₹ 74000 and ₹ 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

$$74 \times x = 5$$
  
>  $96 \times y = 8$ 

$$\begin{array}{c} x \\ > y = 8 \times 74 \end{array}$$

$$> x = 30$$

$$> y = 37$$

.: 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,

$$> \substack{18\\100}\times x = \substack{13\\100}\times y$$

$$\begin{array}{c} x & 13 \\ > y = 18 \end{array}$$

:. 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  $5=5^1$ 

$$10=2^1 imes 5^1$$

$$20=2^2 imes 5^1$$

∴ 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** 60.5 kg
- **D** 59.5 kg

Answer: D

# **Explanation:**

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

Weight of 4 boxes that are being removed  $70 imes 4 = 280 \ \mathrm{kg}$ 

$$^{476}_{8} = 59.5 \, \mathrm{kg}$$

# 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** 130 days
- $\mathbf{B}$   $\begin{array}{c} 106 \\ 7 \end{array}$  days
- $\mathbf{c}$   $^{114}_{7}$  days
- $\mathbf{D}$   $\frac{120}{7}$  days

Answer: D

## **Explanation:**

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

> F's efficiency 
$${}^{96}_{24}=4$$
 units/day and G's efficiency  $3$  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,

$$>7(t-8)+(4\times8)=96$$

$$>7t-56+32=96$$

> 
$$t={\stackrel{120}{\scriptscriptstyle{7}}}$$
 days

> Ans - (D)

## **Ouestion 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  $\begin{array}{c} 60 \\ 20 = 3 \text{ units/hr} \text{ and Q's efficiency} \end{array} 2 \text{ units/hr}$ 

Now, if they work 3 hours in a day, work done by them 3 imes (3+2) = 15 units

- $\therefore$  Number of days taken  $egin{array}{c} 60 \\ 15 = 4 \ {
  m days} \end{array}$
- > 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?

- 33.33%
- 40%
- 60%
- 66.67%

Answer: D

## **Explanation:**

Profit % on selling 1 egg Profit % on selling 35 eggs

> Profit % 
$$(5 \frac{3}{3}) \times 100$$
  $66.67\%$ 

> 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?

- 66
- 44
- 64
- 77

Answer: A

# **Explanation:**

Ratio of white and yellow balls

- > 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?

- 42
- 51.5
- 50.4
- 46.5

Answer: C

## **Explanation:**

 $^{3150}_{5} = Rs.\,630$ Cost price of 75 articles Rs. 3150 and cost price of 15 articles

Let selling price of 75 articles Rs. 75x

According to ques,

$$>75x-3150=630$$

$$> 75x = 630 + 3150 = 3780$$

$$> x = \frac{3780}{75} = 50.4$$

.: Selling price of 1 article Rs. 50.4

## **Ouestion 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** 
$$^{45A}_{7}$$
  $^{8B}$ 

**B** 
$$^{45A}_{46}$$
  $^{B}$ 

**D** 
$$\begin{array}{cc} 45A & 4B \\ 23 & \end{array}$$

Answer: B

# **Explanation:**

Let total teachers is x, and thus total number of students

> Total age of students 45Ax and total age of teachers

$$\therefore \text{Average} \qquad \begin{array}{c} 45Ax \quad Bx \\ x \quad 45x \end{array}$$

$$\begin{array}{c} 45A & 1 \\ 46 & \end{array}$$

# **Question 69**

The table given below shows the number of students enrolled in different courses of different colleges.

Callagas	Courses			
Colleges	<b>B1</b>	<b>B2</b>	<b>B3</b>	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 C3 and C4?

13

11

C 12

**D** 16

Answer: D

## **Explanation:**

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

$$(72 + 54 + 88 + 125) - (76 + 52 + 75 + 120)$$

$$-4 + 2 + 13 + 5 = 16$$

> 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 (16,000:22,000:18,000)

8:11:9

> Share of Ram  $\begin{pmatrix} 8 & 11 & 9 \end{pmatrix} \times 26,600$ 

$$8 \times 950 = Rs.7600$$

> 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 100x and minimum passing marks y

> Minimum passing marks 
$$y=24x+56$$
 -----(i)

Also, 
$$y=60x-70$$
 -----(ii)

Comparing both the equations, we get:

$$> 24x + 56 = 60x - 70$$

$$> 36x = 70 + 56 = 126$$

$$> x = \frac{126}{36} = 3.5$$

 $\therefore$  Maximum marks  $100 \times 3.5 = 350$ 

# **Question 72**

What is the value of  $\left[75 \div 25 of \left( {\frac{4}{3} - \frac{1}{2} + \frac{1}{6}} \right) \right]$ ?

- A
- **B** 3
- $\mathbf{c}^{7}$
- ח

Answer: B

# **Explanation:**

Expression :  $\left[75 \div 25 of \left( {}^4_3 - {}^1_2 + {}^1_6 \right) \right]$ 

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

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

$$_{25}^{75}=3$$

# **Question 73**

Raju travels at  $\frac{3}{4}$  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?



B 72 minutes

C 48 minutes

**D** 56 minutes

Answer: B

# **Explanation:**

Let usual speed 4 m/min and usual time taken t minutes

> Raju's new speed 3 m/min

Also, speed is inversely proportionally to time, according to ques:

$$> 4 = t 24$$

$$> 3t + 72 = 4t$$

$$> t = 72$$

.: Usual time taken 72 minutes

> Ans - (B)

## **Question 74**

Compound interest received on a sum in  $5^{th}$  year is  $\P$  1200 (interest is compounded annually). If the rate of interest is 22.5% 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  $1200+(rac{22.5}{100} imes1200)$ 

$$1200 + 270 = Rs. 1470$$

## **Question 75**

The table given below shows the production of rice and the area under rice cultivation of a country for 5 consecutive years Y1, Y2, Y3, Y4 and Y5.

Year	Rice Production (in 1000 kg)	Area Under Rice Cultivation(in 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** 63.33 kg
- **C** 45.33 kg
- **D** 52.50 kg

Answer: C

# **Explanation:**

Yield per square meter for the year Y3

$$^{680}_{150}$$
  $\times$   $^{1000}_{100}$  **45.33** kg

> Ans - (C)

# **English**

#### Instructions

For the following questions answer them individually

## **Ouestion 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:

## **Question 79**

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

A be

- 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

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 to fill in the blank.

Is it true that the students from the Space Research Centre ....... this evening?

- A are arriving
- B is arriving
- C has arriving
- **D** have arriving

Answer: A

## **Question 93**

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 Archaeologis
- **D** Antiquarian

Answer: D

## **Question 95**

Select the synonym of the given word. INCORRIGIBLE

was very honest.

Α	Reliable
В	Unwise
С	Intelligible
D	Unalterable
1	Answer: D
Qu	estion 96
	lect the most appropriate word to fill in the blank. hough I was of his newplans for growth of the company, I relied on him as he
Α	persuaded
В	committed
С	convinced
D	sceptical
1	Answer: D
Qu	estion 97
	lect the word which means the sameas the group of words given. e who offers one's services without anything in return
OII	e wild offers one s services without anything in return
Α	Volunteer
В	Entrepreneur
С	Businessman
D	Investor
1	Answer: A
Qu	estion 98
	lect the synonym of the given word. SHEVELLED
Α	Unsafe
В	Unclean
С	Uncertain
D	Untidy
	Answer: D

Choose the correct meaning of the following idiom.

To get away with

36 www.jkchrome.com www.jkchrome.com www.jkchrome.com

- 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

