



## SSC CHSL 8 Feb 2017 Evening Shift

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## Reasoning

### Instructions

For the following questions answer them individually

### Question 1

Choose the related word/letters/number from the given alternatives. Horse : Neigh : : Elephant : ?

- A Quack
- B Trumpet
- C Mew
- D Grunt

Answer: B

### Explanation:

Expression = Horse : Neigh : : Elephant : ?

The second is the sound made by the first. Sound made by horse is neigh, similarly an elephant trumpets.

=> Ans - (B)

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### Question 2

Choose the related word/letters/number from the given alternatives.

GH : 78 : : ? : 1819

- A HG
- B LM
- C RS
- D IJ

Answer: C

### Explanation:

Expression = GH : 78 : : ? : 1819

Numerical values of two alphabets are concatenated.

Eg :- G = 7, H = 8  $\equiv$  78

Similarly, 18, 19  $\equiv$  RS

=> Ans - (C)

### Question 3

Choose the related word/letters/number from the given alternatives.

CAR : RAC : : TYRE : ?

- A RUBBER
- B ERTY
- C ERYT
- D STEEL

**Answer: C**

**Explanation:**

Expression = CAR : RAC :: TYRE : ?

The pattern followed is that the word is written in *reverse* order, i.e. first letter at last position, second at second last and so on.

Similarly, reverse of TYRE : **ERYT**

=> Ans - (C)

**Question 4**

**Choose the related word/letters/number from the given alternatives.**

**12 : 60 :: 28 : ?**

**A** 160

**B** 150

**C** 145

**D** 140

**Answer: D**

**Explanation:**

Expression = 12 : 60 :: 28 : ?

The pattern followed is =  $x : 5x$

Eg :-  $12 : 5 \times 12 = 12 : 60$

Similarly,  $5 \times 28 = 140$

=> Ans - (D)

## SSC CHSL Free Mock Test

**Question 5**

**Choose the odd word/letters/number/number pair from the given alternatives.**

**A** Sirius

**B** Proximacentauri

**C** Deimos

**D** Alpha centauri

**Answer: C**

**Explanation:**

Deimos is a natural satellite, all others are stars, hence Deimos is the odd one out.

=> Ans - (C)

**Question 6**

**Choose the odd word/letters/number/number pair from the given alternatives.**

**A** PON

**B** SRQ

C XYZ

D VUT

Answer: C

**Explanation:**

(A) : P (-1 letter) = O (-1 letter) = N

(B) : S (-1 letter) = R (-1 letter) = Q

(C) : X (+1 letter) = Y (+1 letter) = Z

(D) : V (-1 letter) = U (-1 letter) = T

=> Ans - (C)

**Question 7**

Choose the odd word/letters/number/number pair from the given alternatives.

A 1919

B 5656

C 6761

D 7760

Answer: B

**Explanation:**

Apart from 5656, sum of digits of other numbers is 20, hence 5656 is the odd one out.

=> Ans - (B)

## SSC CHSL Previous Papers (DOWNLOAD PDF)

**Question 8**

Choose the odd word/letters/number/number pair from the given alternatives.

A 2890

B 3375

C 1728

D 1331

Answer: A

**Explanation:**

$3375 = (15)^3$ ,  $1728 = (12)^3$  and  $1331 = (11)^3$ , 2890 is not a perfect cube number, hence 2890 is the odd one out.

=> Ans - (A)

**Question 9**

A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series.

Double, Triple, Quadruple, ?

A Quintuple

B Nonuple

C Sextuple

D Octuple

Answer: A

**Explanation:**

Successive series of number of sides is given.

= Double -> Triple -> Quadruple -> Quintuple

=> Ans - (A)

**Question 10**

A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series. AC, EG, ?, MO

A IK

B IJ

C IL

D IM

Answer: A

**Explanation:**

Expression : AC, EG, ?, MO

The pattern followed in each letter of the terms is :

1st letter : A (+4 letters) = E (+4 letters) = I (+4 letters) = M

2nd letter : C (+4 letters) = G (+4 letters) = K (+4 letters) = O

Thus, missing term = **IK**

=> Ans - (A)

## SSC CGL Previous Papers (DOWNLOAD PDF)

**Question 11**

A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series. ?, WX, AB, FG

A TU

B XW

C PQ

D UV

Answer: A

**Explanation:**

Expression : ?, WX, AB, FG

The pattern followed is :

$$\begin{array}{ccccccc} & +1 & & +1 & & +1 & & +1 \\ & \swarrow & \searrow & \swarrow & \searrow & \swarrow & \searrow & \swarrow \\ T & & U & \xrightarrow{+2} & W & & X & \xrightarrow{+3} & A & & B & \xrightarrow{+4} & F & & G \end{array}$$

Thus, missing term = TU

=> Ans - (A)

### Question 12

A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series.  
30, 60, 360, 3600, ?

A 48500

B 50500

C 50400

D 40800

Answer: C

### Explanation:

Expression : 30, 60, 360, 3600, ?



Thus, missing number = 50400

=> Ans - (C)

### Question 13

In the following question, two statements are given each followed by two conclusions I and II. You have to consider the statements to be true even if they seem to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follows from the given statements.

### Statement:

(I) Women generally prefer window shopping.

(II) Males generally are not fond of window shopping and they feel that it is sheer waste of time.

### Conclusions:

(I) Shopping behavior is different for males and females.

(II) If males go for window shopping, they don't utilize much time in selecting a product.

A Only conclusion II follows

B Conclusion I and II both follow

C Neither I nor II follow

D Only conclusion I follows

Answer: D

### Explanation:

The given statements clearly indicate that women like window shopping and men don't as they consider it as sheer waste of time. It clearly means that shopping behavior is different for males and females. We cannot conclude that males don't utilize much time in selecting a product as it is not mentioned in the statements.

Thus, only conclusion I follows.

=> Ans - (D)

**SSC CGL Free Mock Test (Latest Pattern)**

**Question 14**

Five boys A, B, C, D and E are standing in a line. A is taller than E but shorter than D. B is shorter than E and C is the tallest. Who is in the middle ?

- A A
- B C
- C D
- D E

**Answer:** A

**Explanation:**

A is taller than E but shorter than D,  $\Rightarrow D > A > E$ .

B is shorter than E,  $\Rightarrow E > B$ .

Also, C is the tallest.

Combining above statements, we get :  $C > D > A > E > B$

$\therefore$  A is in the middle.

$\Rightarrow$  Ans - (A)

**Question 15**

Arrange the given words in the sequence in which they occur in the dictionary.

- i. Treadmill
- ii. Treason
- iii. Treacherous
- iv. Tread

- A ii, iii, iv, i
- B iii, iv, ii, i
- C iii, iv, i, ii
- D i, ii, iii, iv

**Answer:** C

**Explanation:**

As per the order of dictionary :

= Treacherous  $\rightarrow$  Tread  $\rightarrow$  Treadmill  $\rightarrow$  Treason

$\equiv$  iii, iv, i, ii

$\Rightarrow$  Ans - (C)

**Question 16**

In a certain code language, "RIVER" is written as "12351" and "RED" is written as "156". How is "DRIVER" written in that code language?

- A 612311
- B 612531
- C 621351
- D 612351

Answer: D

**Explanation:**

The codes for each letter is given :

D -> 6

R -> 1

I -> 2

V -> 3

E -> 5

R -> 1

Thus, DRIVER : 612351

=> Ans - (D)

## SSC CHSL Important Questions and Answers (Download PDF)

**Question 17**

In the following question select the missing number from the given series

49	169	484
81	144	625
16	25	?

A 37

B 47

C 48

D 25

Answer: B

**Explanation:**

The logic followed here is,

$$\sqrt{49} + \sqrt{81} \Rightarrow 7 + 9 = 16,$$

$$\sqrt{169} + \sqrt{144} \Rightarrow 13 + 12 = 25,$$

$$\sqrt{484} + \sqrt{624} \Rightarrow 22 + 25 = 47.$$

Hence, option B is the correct answer.

**Question 18**

If "+" means "minus", "x" means "divided by", "÷" means "plus" and "-" means "multiplied by", then  $126 \times 14 + 7 - 3 \div 2 = ?$

A -10

B -12

C -17

D -41

Answer: A

**Explanation:**

Expression =  $126 \times 14 + 7 - 3 \div 2 = ?$



$$\equiv 126 \div 14 - 7 \times 3 + 2$$

$$= 9 - 21 + 2$$

$$= 11 - 21 = -10$$

=> Ans - (A)

#### Question 19

In the following question, which one set of letters when sequentially placed at the gaps in the given letter series shall complete it?  
d\_ba\_c\_a\_cb\_

A cdbda

B cdbad

C bdacd

D abdca

Answer: A

#### Explanation:

The pattern followed is that in groups of 4, the term 'dcba' is repeated.

= dcba dcba dcba

=> Ans - (A)

## SSC CHSL Study Material

#### Question 20

Neeraj is facing north, then he turns 45 degree right and goes 25 m, then turns in south-east direction to move 25 m and from there 25 m to east. In which direction/place is he from his original place?

A North

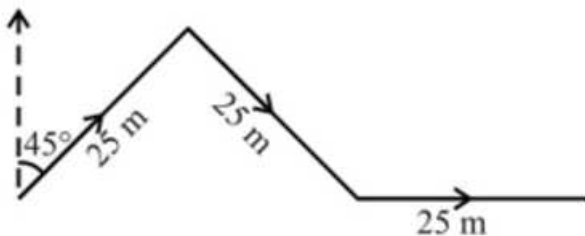
B East

C West

D South

Answer: B

#### Explanation:



Neeraj is facing north, then he turns 45 degree right and goes 25 m towards north east, then turns in south-east direction to move 25 m and finally 25 m to the east.

Thus, he is east from his original place.

=> Ans - (B)

Question 21

A word is represented by only one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets as shown in the given two matrices. The columns and rows of Matrix-I are numbered from 0 to 4 and that of Matrix-II are numbered from 5 to 9. A letter from these matrices can be represented first by its row and next by its column, for example, 'E' can be represented by 02, 11, etc. and can be represented by 65, 56 etc. Similarly, you have to identify the set for the word 'EAGER'.

	0	1	2	3	4
0	S	T	E	D	B
1	A	E	O	F	A
2	E	T	P	A	N
3	D	G	A	S	M
4	G	A	Q	W	1

	5	6	7	8	9
5	F	G	M	R	C
6	G	N	R	K	L
7	A	R	Y	J	F
8	R	B	W	G	Y
9	S	V	Q	H	T

- A 02,10,65,11,68
- B 02,10,65,87,85
- C 02,10,65,11,85
- D 02,10,65,59,85

Answer: C

Explanation:

- (A) : 02,10,65,11,68 = EAGEK
  - (B) : 02,10,65,87,85 = EAGWR
  - (C) : 02,10,65,11,85 = **EAGER**
  - (D) : 02,10,65,59,85 = EAGCR
- => Ans - (C)

Question 22

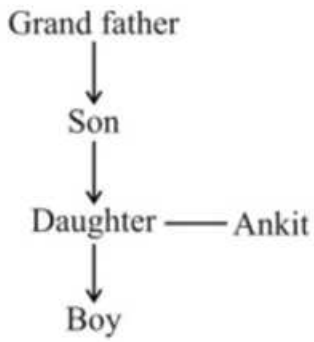
Introducing a boy Ankit said, " He is the son of daughter of my grandfather's son". How is that boy related to Ankit?

- A Cousin
- B Brother
- C Father-in-law
- D Nephew

Answer: D

Explanation:

Daughter of Ankit's grandfather's son = Ankit's sister  
Relation is :



Thus, the boy is Ankit's nephew.

=> Ans - (D)

### SSC CHSL Free App

#### Question 23

If a mirror is placed on the line MN, then which of the answer figures is the right image of the given figure?



Answer: B

#### Explanation:

A vertical mirror is placed, so the object on the left will appear right in reverse position and vice-versa.

So the rectangle (having squares inside) will be reversed, thus the first and last options will be eliminated.

Thus second option is the right image.

=> Ans - (B)

#### Question 24

Identify the diagram that best represents the relationship among the given classes. Earth, Saturn, Planet, Star





Answer: C

**Explanation:**

Earth and Saturn are both planets but are different (hence do not intersect each other), and star is a different body in solar system.

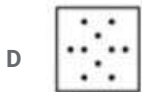
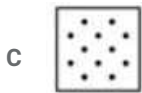
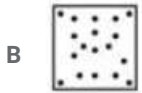
Thus, the venn diagram that best describes above relationship is :



=> Ans - (C)

**Question 25**

A piece of paper is folded and punched as shown below in the question figures. From the given answer figures, indicate how it will appear when opened.



Answer: C

**Explanation:**

When the paper is unfolded first to the left, three dots will appear similarly on the left part of the paper.

When the paper is unfolded again, three dots each on top part and right part will appear similarly.

∴ When the paper is unfolded it will appear as shown below



Hence, the correct answer is Option C

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**General Awareness**

**Instructions**

For the following questions answer them individually

**Question 26**

Which drug is used as an Anti-Anxiety drug?

- A Warfarin
- B Diazepam
- C Latanoprost
- D Hydralazine

Answer: B

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### Question 27

*Ficus benghalensis* is the scientific name of \_\_\_\_\_

- A Banyan
- B Pineapple
- C Babul
- D Tulsi

Answer: A

### Question 28

*Equus burchellii* is the scientific name of \_\_\_\_\_

- A Horse
- B Zebra
- C Buffalo
- D Ass

Answer: B

### Question 29

Atomic number of which of the following elements is greater than that of Copper?

- A Iron
- B Chromium
- C Zinc
- D Manganese

Answer: C

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### Question 30

Vacuum Tubes were used by \_\_\_\_\_ Generation of Computers.

- A First
- B Second
- C Third
- D Fourth

Answer: A

**Question 31**

Ghumura is a folk dance of \_\_\_\_\_

- A Odisha
- B Andhra Pradesh
- C Jammu & Kashmir
- D Maharashtra

Answer: A

**Question 32**

7 workers work in a printing press. Each gets paid Rs 450 per day. The 8th worker demands Rs 500 per day. If this worker is hired then all other workers must be paid Rs 500. The marginal resource (labour) cost of the 8th worker is .

- A Rs 50
- B Rs 850
- C Rs 400
- D Rs 100

Answer: B

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**Question 33**

An increase of 1% per annum in the rate of growth of the money supply will increase inflation in the long run by .

- A Zero percent
- B One percent
- C 0.5 percent
- D More than one percent

Answer: B

**Question 34**

Which of the following is false with reference to a photo-voltaic cell?

- A It is another name as solar cell

- B It can be used as infra-red detectors
- C It can store light energy in the form of electrical energy
- D It converts electric energy into light energy

Answer: D

**Question 35**

**Methane an air pollutant is produced \_\_\_\_\_**

- A by action of ultraviolet light on nitrogenous compounds.
- B as a by-product of manufacturing ammoniacal fertilizers
- C by burning of coal in insufficient air
- D by digestion of food by animals

Answer: D

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**Question 36**

**In the National Flag of India, Ashoka Chakra is a \_\_\_\_\_spoked wheel.**

- A 8
- B 12
- C 16
- D 24

Answer: D

**Question 37**

**The longest day of the year in the Northern Hemisphere occur on\_\_\_\_\_**

- A 20th May
- B 21st June
- C 20th July
- D 21st August

Answer: B

**Question 38**

**Chandragupta Maurya was an ardent follower of \_\_\_\_\_**

- A Sikhism
- B Jainism
- C Buddhism

D Judaism

Answer: B

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Question 39

The First Battle of Panipat in 1526 was fought between the the Lodi Empire and .

A Babur

B Humayun

C Akbar

D Aurangzeb

Answer: A

Question 40

Who Invented Ceiling fan?

A Lloyd Groff Copeman

B Bartolomeo Cristofori

C Leonardo da Vinci

D Philip Diehl

Answer: D

Question 41

Rate of work done is .

A Energy

B Power

C Momentum

D Impulse

Answer: B

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Question 42

What is the unit of the physical quantity "Young's modulus"?

A newton

B erg

C joule

D pascal



**Answer: D**

**Question 43**

**Pradhan Mantri Mudra Yojana was announced under the leadership of \_\_\_\_\_**

- A Jawaharlal Nehru
- B Indira Gandhi
- C Narendra Modi
- D Manmohan Singh

**Answer: C**

**Question 44**

**The number of parliamentary seats (Lok Sabha) of Punjab is\_\_\_\_\_**

- A 2
- B 13
- C 20
- D 25

**Answer: B**

## SSC CHSL Free Mock Test

**Question 45**

**Who has the record of highest number of Gold Medals in the history of Olympics?**

- A Usain Bolt
- B Michael Phelps
- C Larisa Latynina
- D Ian Thorpe

**Answer: B**

**Question 46**

**Who is the author of "Gently Falls: The Bakula"?"**

- A Amitav Ghosh
- B Mitali Meelan
- C Ravinder Singh
- D Sudha Murty

**Answer: D**

**Question 47**

**Which fort is also known as the Golden Fort?**

- A Chittorgarh
- B Kumbhalgarh
- C Ranthambore
- D Jaisalmer

**Answer: D**

**SSC CHSL Previous Papers (DOWNLOAD PDF)**

**Question 48**

**Highest Civilian Honour received by Shabana Azmi is**

- A Padma Shri
- B Padma Bhushan
- C Padma Vibhushan
- D Bharat Ratna

**Answer: C**

**Question 49**

**Which of the following is false?**

- A Hydrogen atom is roughly a third of the mass of tritium
- B Deuterium is called heavy hydrogen
- C Deuterium atom has 1 neutron
- D Protium is the rarest isotope of hydrogen

**Answer: D**

**Question 50**

**Which Indian lake is renowned as the Lagoon lake of India?**

- A Kanjia Lake
- B Agra Lake
- C Mansar Lake
- D Chilika lake

**Answer: D**

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# Mathematics

## Instructions

For the following questions answer them individually

### Question 51

What is the LCM (least common multiple) of 57 and 93?

- A 1767
- B 1567
- C 1576
- D 1919

Answer: A

#### Explanation:

Prime factorization of 57 =  $3 \times 19$

Prime factorization of 93 =  $3 \times 31$

=> L.C.M. of 57 and 93 =  $3 \times 19 \times 31$

=  $57 \times 31 = 1767$

=> Ans - (A)

## SSC CGL Free Mock Test (Latest Pattern)

### Question 52

If  $\sec -5\pi/4 = x$ , then the value of x is

- A  $-\frac{1}{\sqrt{3}}$
- B  $-\sqrt{2}$
- C  $-1$
- D  $\sqrt{3}$

Answer: B

#### Explanation:

Expression :  $\sec -5\pi/4 = x$

$\therefore \sec(-x) = \sec(x)$

=  $\sec\left(\frac{-5\pi}{4}\right) = \sec\left(\frac{5\pi}{4}\right)$

=  $\sec\left(\pi + \frac{\pi}{4}\right) = -\sec\left(\frac{\pi}{4}\right)$

=  $-\sqrt{2}$

=> Ans - (B)

### Question 53

Marked price of an item is Rs 500. On purchase of 2 items discount is 8%, on purchase of 3 items discount is 16%. Radha buys 5 items, what is the effective discount?

- A 20.4 percent

- B 23.25 percent
- C 12.8 percent
- D 35 percent

**Answer: C**

**Explanation:**

Marked price of item = Rs. 500

=> Marked price of 2 items =  $2 \times 500 = \text{Rs. } 1000$

Amount saved on buying 2 items =  $\frac{8}{100} \times 1000 = \text{Rs. } 80$

Marked price of 3 items =  $3 \times 500 = \text{Rs. } 1500$

Amount saved on buying 3 items =  $\frac{16}{100} \times 1500 = \text{Rs. } 240$

Thus, on buying 5 items, total amount saved =  $80 + 240 = \text{Rs. } 320$

Total marked price of 5 items =  $5 \times 500 = \text{Rs. } 2500$

$\therefore$  Effective discount =  $\frac{320}{2500} \times 100$

=  $\frac{320}{25} = 12.8\%$

=> Ans - (C)

**Question 54**

If  $\tan(A/2) = x$ , then the value of  $x$  is

- A  $\sin A / (1 - \cos A)$
- B  $\sin A / (1 + \cos A)$
- C  $\sqrt{[\sin A / (1 + \cos A)]}$
- D  $\sqrt{[\sin A / (1 - \cos A)]}$

**Answer: B**

**Explanation:**

Using double angle formula, we know that  $\cos(2\theta) = \cos^2\theta - \sin^2\theta$

=>  $\cos(2\theta) = (1 - \sin^2\theta) - \sin^2\theta$

=>  $\cos(2\theta) = 1 - 2\sin^2\theta$

Replacing  $\theta$  by  $\frac{A}{2}$ , we get :

=>  $\cos A = 1 - 2\sin^2\left(\frac{A}{2}\right)$

=>  $2\sin^2\left(\frac{A}{2}\right) = 1 - \cos A$

=>  $\sin^2\left(\frac{A}{2}\right) = \frac{(1 - \cos A)}{2}$

=>  $\sin\left(\frac{A}{2}\right) = \sqrt{\frac{(1 - \cos A)}{2}}$

Similarly, =>  $\cos\left(\frac{A}{2}\right) = \sqrt{\frac{(1 + \cos A)}{2}}$

Now, to find :  $\tan\left(\frac{A}{2}\right)$

=  $\sin\left(\frac{A}{2}\right) \div \cos\left(\frac{A}{2}\right)$

=  $\frac{\sqrt{\frac{(1 - \cos A)}{2}}}{\sqrt{\frac{(1 + \cos A)}{2}}}$

$$\begin{aligned}
&= \sqrt{\frac{(1-\cos A)}{2}} \times \sqrt{\frac{2}{(1+\cos A)}} \\
&= \sqrt{\frac{1-\cos A}{1+\cos A}} \\
&= \sqrt{\frac{1-\cos A}{1+\cos A} \times \frac{1+\cos A}{1+\cos A}} \\
&= \sqrt{\frac{1-\cos^2 A}{(1+\cos A)^2}} = \sqrt{\frac{\sin^2 A}{(1+\cos A)^2}} \\
&= \frac{\sin A}{1+\cos A} \\
&\Rightarrow \text{Ans - (B)}
\end{aligned}$$

## SSC CHSL Important Questions and Answers (Download PDF)

### Question 55

If  $2\sec A - (1 + \sin A)/\cos A = x$ , then the value of  $x$  is

- A  $\operatorname{cosec} A/(1+\sin A)$
- B  $\cos A/(1+\sin A)$
- C  $\cos A(1+\sin A)$
- D  $\operatorname{cosec} A(1+\sin A)$

**Answer:** B

#### Explanation:

Expression :  $2\sec A - (1 + \sin A)/\cos A = x$

$$\begin{aligned}
&= \frac{2}{\cos A} - \frac{(1+\sin A)}{\cos A} \\
&= \frac{2-1-\sin A}{\cos A} = \frac{1-\sin A}{\cos A}
\end{aligned}$$

Multiplying both numerator and denominator by  $(1 + \sin A)$

$$\begin{aligned}
&= \frac{1-\sin A}{\cos A} \times \frac{(1+\sin A)}{(1+\sin A)} \\
&= \frac{1-\sin^2 A}{\cos A(1+\sin A)} = \frac{\cos^2 A}{\cos A(1+\sin A)} \\
&= \frac{\cos A}{1+\sin A}
\end{aligned}$$

$\Rightarrow$  Ans - (B)

### Question 56

The mean of marks secured by 60 students in division A of class X is 64, 40 students of division B is 60 and that of 60 students of division C is 58. Find the mean of marks of the students of three divisions of Class X.

- A 60.05
- B 59.35
- C 62.15
- D 60.75

**Answer:** D

#### Explanation:

Total marks secured by 60 students in division A =  $60 \times 64 = 3840$

Total marks secured by 40 students in division B =  $40 \times 60 = 2400$

Total marks secured by 60 students in division C =  $60 \times 58 = 3480$

=> Mean of marks of the students of three divisions of Class X =  $\frac{(3840+2400+3480)}{(60+40+60)}$

$$= \frac{9720}{160} = 60.75$$

=> Ans - (D)

#### Question 57

The difference between simple and compound interests compounded annually on a certain sum of money for 2 years at 5% per annum is Rs 45. The sum is

A Rs 36000

B Rs 72000

C Rs 18000

D Rs 54000

Answer: C

#### Explanation:

Let the given sum = Rs.  $100x$

Rate of interest = 5% and time period = 2 years

$$\text{Compound interest} = P\left[\left(1 + \frac{R}{100}\right)^T - 1\right]$$

$$= 100x\left[\left(1 + \frac{5}{100}\right)^2 - 1\right]$$

$$= 100x\left[\left(\frac{21}{20}\right)^2 - 1\right] = 100x\left(\frac{441-400}{400}\right)$$

$$= 100x \times \frac{41}{400} = \frac{41x}{4}$$

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

$$= \frac{100x \times 5 \times 2}{100} = 10x$$

$$\Rightarrow \text{Difference between simple and compound interests} = \frac{41x}{4} - 10x = 45$$

$$\Rightarrow \frac{41x-40x}{4} = 45$$

$$\Rightarrow x = 4 \times 45 = 180$$

$$\therefore \text{Value of given sum} = 100 \times 180 = \text{Rs.}18,000$$

=> Ans - (C)

## SSC CHSL Study Material

#### Question 58

The price of an article is cut by 33%, to restore to its original value, the new price must be increased by

A 33 percent

B 49.25 percent

C 24.81 percent

D 41.25 percent

**Answer: B**

**Explanation:**

Let the original price of the article = Rs. 100

If the price is cut by 33%, => New price =  $\frac{100-33}{100} \times 100 = Rs.67$

To restore to its original value the new price must be increased by =  $\frac{100-67}{67} \times 100$

=  $\frac{33}{67} \approx 49.25\%$

=> Ans - (B)

**Question 59**

**The third proportional of two numbers 9 and 24 is**

**A** 39

**B** 48

**C** 72

**D** 64

**Answer: D**

**Explanation:**

Three numbers a,b,c are in proportion iff  $b^2 = ac$  where  $b$  is the mean proportion and  $c$  is the third proportion

The given numbers are 9 and 24

=>  $(24)^2 = 9 \times c$

=>  $c = \frac{24 \times 24}{9}$

=>  $c = 8 \times 8 = 64$

=> Ans - (D)

**Question 60**

**The total surface area of a hemisphere is 166.32 sq cm, find its radius?**

**A** 4.2 cm

**B** 8.4 cm

**C** 1.4 cm

**D** 2.1 cm

**Answer: A**

**Explanation:**

Let radius of hemisphere =  $r$  cm

Total surface area of hemisphere =  $3\pi r^2 = 166.32$

=>  $r^2 = \frac{166.32}{3\pi}$

=>  $r^2 = 55.44 \times \frac{7}{22}$

=>  $r^2 = 2.52 \times 7 = 17.64$

=>  $r = \sqrt{17.64} = 4.2$  cm

=> Ans - (A)

Question 61

$\Delta ABC$  is similar to  $\Delta DEF$ . Length of AB is 18 cm and length of the corresponding side DE is 10 cm. What is the ratio of Perimeter of  $\Delta ABC$  : Perimeter of  $\Delta DEF$ ?

- A 5:9
- B 9:5
- C 81:25
- D 25:81

Answer: B

Explanation:

It is given that  $\Delta ABC \sim \Delta DEF$

Also, length of AB = 18 cm and length of the corresponding side DE = 10 cm

=> Ratio of Perimeter of  $\Delta ABC$  : Perimeter of  $\Delta DEF$  = Ratio of corresponding sides = AB : DE

$$\frac{18}{10} = \frac{9}{5}$$

∴ The required ratio is 9 : 5

=> Ans - (B)

Question 62

Two cars travel from city A to city B at a speed of 36 and 48 km/hr respectively. If one car takes 3 hours lesser time than the other car for the journey, then the distance between City A and City B is

- A 518 km
- B 432 km
- C 648 km
- D 346 km

Answer: B

Explanation:

Let the distance between City A and City B =  $d$  km

Speed of first car = 36 km/hr and speed of second car = 48 km/hr

Let time taken by first car =  $t$  hrs and time taken by second car =  $(t - 3)$  hrs

Using, speed = distance/time for first car :

$$\Rightarrow \frac{d}{t} = 36$$

$$\Rightarrow d = 36t \text{ -----(i)}$$

$$\text{For second car, } \Rightarrow \frac{d}{t-3} = 48$$

Substituting value of  $d$  from equation (i), we get :

$$\Rightarrow 36t = 48t - 144$$

$$\Rightarrow 48t - 36t = 12t = 144$$

$$\Rightarrow t = \frac{144}{12} = 12 \text{ hrs}$$



From equation (i),  $\Rightarrow d = 36 \times 12 = 432$  km

$\Rightarrow$  Ans - (B)

### Question 63

A shopkeeper by selling 13 Titan watches, earns a profit equal to the selling price of 3 Titan watches. His profit percentage is

- A 30 percent
- B 23.0 percent
- C 46 percent
- D 16 percent

**Answer: A**

#### Explanation:

Let cost price of a watch =  $Rs.x$

Selling price of a watch =  $Rs.y$

$\Rightarrow$  Selling price of 3 watches =  $Rs.3y$

According to ques,  $\Rightarrow 13(y - x) = 3y$

$$\Rightarrow 13y - 13x = 3y$$

$$\Rightarrow 10y = 13x$$

$$\Rightarrow \frac{x}{y} = \frac{10}{13}$$

Let Cost price,  $x = 10$  and selling price,  $y = 13$

$$\therefore \text{Profit \%} = \frac{y-x}{x} \times 100$$

$$= \frac{13-10}{10} \times 100$$

$$= 3 \times 10 = 30\%$$

$\Rightarrow$  Ans - (A)

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### Question 64

The line passing through  $(-2,5)$  and  $(6,b)$  is perpendicular to the line  $20x + 5y = 3$ . Find  $b$ ?

- A -7
- B 4
- C 7
- D -4

**Answer: C**

#### Explanation:

Slope of line having equation :  $ax + by + c = 0$  is  $-\frac{a}{b}$

$\Rightarrow$  Slope of line  $20x + 5y = 3$  is  $-\frac{20}{5} = -4$

Slope line passing through  $(-2,5)$  and  $(6,b) = \frac{b-5}{6+2} = \frac{(b-5)}{8}$

Also, product of slopes of two perpendicular lines is -1

$$\Rightarrow \frac{(b-5)}{8} \times -4 = -1$$

$$\Rightarrow b - 5 = \frac{8}{4} = 2$$

$$\Rightarrow b = 2 + 5 = 7$$

$\Rightarrow$  Ans - (C)

#### Question 65

Find the sum of interior angles of a dodecagon?

A 1620°

B 1800°

C 1440°

D 1260°

Answer: B

#### Explanation:

Sum of all interior angles of a polygon having  $n$  sides =  $(n - 2) \times 180^\circ$

Number of sides of dodecagon,  $n = 12$

$\Rightarrow$  Sum of interior angles =  $(12 - 2) \times 180^\circ$

$$= 10 \times 180 = 1800^\circ$$

$\Rightarrow$  Ans - (B)

#### Question 66

A does 80% of a work in 20 days. He then calls in B and they together finish the remaining work in 4 days. How long B alone would take to do the whole work?

A 12.5 days

B 100 days

C 22.5 days

D 35 days

Answer: B

#### Explanation:

Let total work to be done = 100 units

Work done by A in 20 days =  $\frac{80}{100} \times 100 = 80$  units

A's efficiency =  $\frac{80}{20} = 4$  units/day

Remaining work =  $100 - 80 = 20$  units

Let B's efficiency =  $x$  units/day

Now, A and B complete remaining work in 4 days

$$\Rightarrow (4 + x) \times 4 = 20$$

$$\Rightarrow 4 + x = \frac{20}{4} = 5$$

$$\Rightarrow x = 5 - 4 = 1$$

$\therefore$  Time taken by B to complete the whole work alone =  $\frac{100}{1} = 100$  days

$\Rightarrow$  Ans - (B)

## Free SSC Study Material (18,000 Solved Questions)

### Question 67

The area of a circle is 616 sq cm, find its circumference?

- A 44 cm
- B 88 cm
- C 22 cm
- D 176 cm

**Answer: B**

#### Explanation:

Let the radius of circle =  $r$  cm

$$\text{Area of circle} = \pi r^2 = 616$$

$$\Rightarrow \frac{22}{7} \times (r)^2 = 616$$

$$\Rightarrow (r)^2 = \frac{616 \times 7}{22} = 196$$

$$\Rightarrow r = \sqrt{196} = 14 \text{ cm}$$

$$\therefore \text{Circumference of circle} = 2\pi r$$

$$= 2 \times \frac{22}{7} \times 14$$

$$= 44 \times 2 = 88 \text{ cm}$$

$\Rightarrow$  Ans - (B)

### Question 68

If  $3x - 8(2 - x) = -19$ , then the value of  $x$  is

- A  $-3/11$
- B  $-33/11$
- C  $-3/5$
- D  $-33/5$

**Answer: A**

#### Explanation:

$$\text{Expression : } 3x - 8(2 - x) = -19$$

$$\Rightarrow 3x - 16 + 8x = -19$$

$$\Rightarrow 11x = 16 - 19 = -3$$

$$\Rightarrow x = \frac{-3}{11}$$

$\Rightarrow$  Ans - (A)

### Question 69

If  $x - y = 6$  and  $xy = 40$ , then find  $x^2 + y^2$

- A 116

- B 80
- C 89
- D 146

**Answer: A**

**Explanation:**

Given :  $(x - y) = 6$  and  $xy = 40$

Using  $(x - y)^2 = x^2 + y^2 - 2xy$

$$\Rightarrow (6)^2 = (x^2 + y^2) - (2 \times 40)$$

$$\Rightarrow (x^2 + y^2) = 36 + 80 = 116$$

$\Rightarrow$  Ans - (A)

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**Question 70**

Product of digits of a 2-digit number is 27. If we add 54 to the number, the new number obtained is a number formed by interchange of the digits. Find the number.

- A 39
- B 93
- C 63
- D 36

**Answer: A**

**Explanation:**

Let the unit's digit of the number be  $y$  and ten's digit be  $x$

$$\Rightarrow \text{Number} = 10x + y$$

$$\text{Product of digits} = x \times y = 27 \text{ -----(i)}$$

$$\text{According to question, } \Rightarrow 10x + y + 54 = 10y + x$$

$$\Rightarrow 9y - 9x = 54$$

$$\Rightarrow y - x = \frac{54}{9} = 6 \text{ -----(ii)}$$

Solving equation (i) and (ii), we get :  $x = 3$  and  $y = 9$

$\therefore$  Number = 39

$\Rightarrow$  Ans - (A)

**Question 71**

If  $2x - 3(2x - 2) > x - 1 < 2 + 2x$ ; then  $x$  can take which of the following values?

- A 2
- B -2
- C 4
- D -4

**Answer: B**

**Explanation:**

Expression 1 :  $x - 1 < 2 + 2x$

$\Rightarrow 2x - x > -1 - 2$

$\Rightarrow x > -3$  -----(i)

Expression 2 :  $2x - 3(2x - 2) > x - 1$

$\Rightarrow -4x + 6 > x - 1$

$\Rightarrow 4x + x < 6 + 1$

$\Rightarrow x < \frac{7}{5}$  -----(ii)

Combining inequalities (i) and (ii), we get :  $-3 < x < \frac{7}{5}$

Thus, only value that  $x$  can take among the options = -2

$\Rightarrow$  Ans - (B)

**Question 72**

Refer the below table and the following questions

	Number of Employees	Annual Salary (in lakhs)	Bonus as percent of annual salary
Manager	3	30	30%
Executive	8	16	20%
Trainee	4	2	20%

What is average bonus in rupees ?

A 5419995

B 160000

C 361333

D 126000

Answer: C

**Explanation:**

Total bonus of managers (in lakh) =  $3 \times 30 \times \frac{30}{100} = 27$  lakhs

Total bonus of executive (in lakh) =  $8 \times 16 \times \frac{20}{100} = 25.6$  lakhs

Total bonus of trainee (in lakh) =  $4 \times 2 \times \frac{20}{100} = 1.6$  lakhs

$\Rightarrow$  Average bonus in rupees =  $\frac{(27+25.6+1.6)}{(3+8+4)}$

=  $\frac{54.2}{15} = 3.61333$  lakhs = Rs. 3,61,333

$\Rightarrow$  Ans - (C)

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**Question 73**

Read the below data table and answer the following questions

	2011	2012	2013	2014	2015
Company A	3000	5000	4000	5000	5000
Company B	1000	1000	1000	2000	2000
Company C	4000	2000	2000	2000	3000

For which of the following pairs of years the total exports from the three companies together are equal

- A 2011 & 2012
- B 2013 & 2015
- C 2011 & 2014
- D 2014 & 2015

**Answer:** A

**Explanation:**

Total exports from the three companies together in :

$$2011 = 3000 + 1000 + 4000 = 8000$$

$$2012 = 5000 + 1000 + 2000 = 8000$$

$$2013 = 4000 + 1000 + 2000 = 7000$$

$$2014 = 5000 + 2000 + 2000 = 9000$$

$$2015 = 5000 + 2000 + 3000 = 10000$$

Clearly, total exports in 2011 and 2012 are equal to 8000

=> Ans - (A)

**Question 74**

Read the below data table and answer the following questions

Year	Profit or Loss in crore
2011	-10
2012	5
2013	10
2014	-15
2015	-5

What was the total profit or loss of the company in last 5 years

- A Profit of Rs 15 crores
- B Loss of Rs 25 crores
- C Loss of Rs 15 crores
- D Profit of Rs 25 crores

**Answer:** C

**Explanation:**

Total profit or loss in Rs. crore in last 5 years

$$= -10 + 5 + 10 - 15 - 5$$

$$= 15 - 30 = -15$$

Since, it is negative, thus loss of Rs. 15 crore

=> Ans - (C)

**Question 75**

Read the below data table and answer the following questions

India's Exports in 2015	Value in million US
Jewellery	675
Software	500
Cotton	525
Steel	575
Electronics	725

Jewellery was what percent of total exports

- A 25 percent
- B 27.5 percent
- C 22.5 percent
- D 20 percent

**Answer: C**

**Explanation:**

Value in millions of Jewelry = 675

Total exports = 675 + 500 + 525 + 575 + 725 = 3000

=> % of Jewelry in total exports =  $\frac{675}{3000} \times 100$

=  $\frac{675}{30} = 22.5\%$

=> Ans - (C)

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**English**

**Instructions**

For the following questions answer them individually

**Question 76**

Select the word with the correct spelling.

- A brooches
- B linoleam
- C limekilne
- D cherubick

**Answer: A**

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**Question 77**

In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the idiom/phrase. An outline representing or bounding the shape or form of something.

- A tracery
- B contour
- C doodle
- D pattern

Answer: B

**Question 78**

In the following question, some part of the sentence may have errors. Find out which part of the sentence has an error and select the appropriate option. If a sentence is free from error, select 'No Error'.

Soon as he(A)/saw the policeman,(B)/ he ran away.(C)/No error(D)

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

Answer: A

**Question 79**

Rearrange the parts of the sentence in correct order.

We are told that its

P-Public Distribution System

Q-creating a functional

R-sole purpose is the noble goal of

- A QRP
- B RQP
- C PRQ
- D PQR

Answer: B

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**Question 80**

Select the word with the correct spelling.

- A lammented
- B scabbard
- C ordenance
- D synaptick

Answer: B



**Question 81**

In the following question, a sentence has been given in Direct/Indirect speech. Out of the four alternatives suggested, select the one, which best expresses the same sentence in Indirect/Direct speech.

Gokul said to Sumit, "Why did not you attend the meeting yesterday?"

- A Gokul asked Sumit why he did not attend the meeting the day before.
- B Gokul asked Sumit why he had not attended that meeting yesterday.
- C Gokul asked Sumit why he had not attended the meeting the day before.
- D Gokul asked Sumit why he did not attend that meeting yesterday.

**Answer:** C

**Explanation:**

'Yesterday' should be changed to 'the day before'. The given sentence is in the simple past tense. Therefore, the reported speech must be in the past perfect tense. Only option C satisfies these 2 conditions and hence, option C is the right answer.

**Question 82**

In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the idiom/phrase. to lose one's head

- A to lose respect within your community
- B to become complacent and gradually worsen your performance
- C to become confused or overly emotional about someone or something
- D to lose sense or start behaving like a lunatic

**Answer:** C

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**Question 83**

In the following question, out of the four alternatives, select the alternative which is the best substitute of the phrase. A person famous and respected within a particular sphere.

- A eminent
- B obscure
- C despotic
- D imperative

**Answer:** A

**Question 84**

In the following question, a sentence has been given in Active/Passive voice. Out of four alternatives suggested, select the one, which best expresses the same sentence in Passive/Active voice.

We shall invite Suresh.

- A Suresh would be invited by us.
- B Suresh would have been invited by us.

- C Suresh will be invited by us.
- D Suresh will have been invited by us.

**Answer: C**

**Question 85**

**Select the antonym of 'amenable'**

- A responsive
- B pliable
- C docile
- D unsusceptible

**Answer: D**

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**Question 86**

**Select the synonym of  
to subsume**

- A to bate
- B to obviate
- C to preclude
- D to incorporate

**Answer: D**

**Question 87**

**Improve the bracketed part of the sentence  
I prefer black coffee (over) cappuccino.**

- A rather than
- B to
- C instead of
- D no improvement

**Answer: B**

**Question 88**

**In the following question, some part of the sentence may have errors. Find out which part of the sentence has an error and select the appropriate option. If a sentence is free from error, select 'No Error'.**

**You must not(A)/look down into(B)/parents' advice.(C)/No error(D)**

- A A
- B B

C C

D D

Answer: B

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Question 89

Improve the bracketed part of the sentence

The priest agreed (to answer on) questions on theology.

A to answer

B for answering

C to answer for

D no improvement

Answer: A

Question 90

Select the synonym of  
to lash

A to endear

B to fondle

C to chastise

D to snuggle

Answer: C

Question 91

In the following question, the sentence given with blank to be filled in with an appropriate word. Select the correct alternative out of the four and indicate it by selecting the appropriate option.

Arun's financial \_\_\_\_\_ has helped him earn a fortune on the stock market.

A dexterity

B readiness

C expertise

D knack

Answer: C

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Question 92

In the following question, sentence given with blank is to be filled in with an appropriate word. Select the correct alternative out of the four and indicate it by selecting the appropriate option.

Fuel suppliers will \_\_\_\_\_ the national oil shortage by raising prices to increase their bottom lines.

- A use
- B misuse
- C venture
- D exploit

**Answer: D**

**Question 93**

**Select the antonym of to muster**

- A to convocate
- B to rally
- C to estrange
- D to aggregate

**Answer: C**

**Question 94**

**In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the idiom/phrase. head over heels**

- A to think with head instead of heart
- B to run away from an unpleasant situation
- C to take a nasty fall
- D to be madly in love

**Answer: D**

## **SSC CHSL Important Questions and Answers (Download PDF)**

**Question 95**

**Rearrange the parts of the sentence in correct order.**

**So, increasingly,**

**P-paying to provide revenues Q-for the Central government R-the poor have been**

- A RPQ
- B RQP
- C PQR
- D QPR

**Answer: A**

Question 96

In the following passage, some of the words have been left out. Read the passage carefully and select the correct answer for the given blank out of the four alternatives.

The scenario \_\_\_\_\_ dramatically today. We have the \_\_\_\_\_ of powerful Internet monopolies that are much bigger \_\_\_\_\_ the telcos. Not surprisingly, these companies now see the \_\_\_\_\_ of monopoly. They would like to combine with telcos to create monopolies for their platforms, ensuring that they control the future of the Internet and freeze their competition \_\_\_\_\_.

The scenario \_\_\_\_\_ dramatically today.

- A change
- B had changed
- C has changed
- D changing

Answer: C

Question 97

In the following passage, some of the words have been left out. Read the passage carefully and select the correct answer for the given blank out of the four alternatives.

The scenario \_\_\_\_\_ dramatically today. We have the \_\_\_\_\_ of powerful Internet monopolies that are much bigger \_\_\_\_\_ the telcos. Not surprisingly, these companies now see the \_\_\_\_\_ of monopoly. They would like to combine with telcos to create monopolies for their platforms, ensuring that they control the future of the Internet and freeze their competition \_\_\_\_\_.

We have the \_\_\_\_\_ of powerful Internet

- A emerging
- B emerge
- C emergence
- D emergency

Answer: C

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Question 98

In the following passage, some of the words have been left out. Read the passage carefully and select the correct answer for the given blank out of the four alternatives.

The scenario \_\_\_\_\_ dramatically today. We have the \_\_\_\_\_ of powerful Internet monopolies that are much bigger \_\_\_\_\_ the telcos. Not surprisingly, these companies now see the \_\_\_\_\_ of monopoly. They would like to combine with telcos to create monopolies for their platforms, ensuring that they control the future of the Internet and freeze their competition \_\_\_\_\_.

monopolies that are much bigger \_\_\_\_\_ the telcos

- A then
- B than
- C to
- D of

Answer: B

Question 99

In the following passage, some of the words have been left out. Read the passage carefully and select the correct answer for the given blank out of the four alternatives.

The scenario \_\_\_\_\_ dramatically today. We have the \_\_\_\_\_ of powerful Internet monopolies that are much bigger \_\_\_\_\_ the telcos. Not surprisingly, these companies now see the \_\_\_\_\_ of monopoly. They would like to combine with telcos to create monopolies for their platforms, ensuring that they control the future of the Internet and freeze their competition \_\_\_\_\_.

Not surprisingly, these companies now see the \_\_\_\_\_ of monopoly.

- A virtues
- B respectability
- C trust
- D innocence

Answer: A

Question 100

In the following passage, some of the words have been left out. Read the passage carefully and select the correct answer for the given blank out of the four alternatives.

The scenario \_\_\_\_\_ dramatically today. We have the \_\_\_\_\_ of powerful Internet monopolies that are much bigger \_\_\_\_\_ the telcos. Not surprisingly, these companies now see the \_\_\_\_\_ of monopoly. They would like to combine with telcos to create monopolies for their platforms, ensuring that they control the future of the Internet and freeze their competition \_\_\_\_\_ .

- A off
- B about
- C in
- D out

Answer: D

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