



## SSC CHSI 19 Jan 2017 Morning Shift

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# Reasoning

## Instructions

For the following questions answer them individually

### Question 1

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

Prompt : Gradual :: Reverse : ?

- A Decrease
- B Forward
- C Backward
- D Inclination

Answer: B

### Explanation:

Prompt and gradual are antonyms, similarly opposite of reverse is *forward*.

=> Ans - (B)

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### Question 2

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

KOT : PJO :: FIR : ?

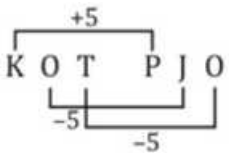
- A TMN
- B NKM
- C KDM
- D MNJ

Answer: C

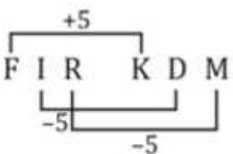
### Explanation:

Expression = KOT : PJO :: FIR : ?

The pattern followed is :



Similarly for FIR :



=> Ans - (C)

### Question 3

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

QRU : RQF :: GIC : ?

- A GHJ
- B HGH
- C HHX
- D IGV

**Answer: C**

**Explanation:**

Expression = QRU : RQF :: GIC : ?

The following pattern is followed and U and F are corresponding opposite letters.



Similarly, for GIC : HHX

=> Ans - (C)

**Question 4**

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

1331 : 11 :: 13824 : ?

- A 20
- B 23
- C 18
- D 24

**Answer: D**

**Explanation:**

Expression = 1331 : 11 :: 13824 : ?

The pattern followed is =  $x^3 : x$

Eg :-  $11^3 : 11 = 1331 : 11$

Similarly,  $\sqrt[3]{13824} = 24$

=> Ans - (D)

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**Question 5**

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

- A Anger
- B Enquiry
- C Investigation

D Probe

Answer: A

Explanation:

Except Anger other three are synonyms of each other, hence it is the odd one out.

=> Ans - (A)

Question 6

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

A ZVR

B MIE

C TXP

D RNJ

Answer: C

Explanation:

(A) : Z (-4 letters) = V (-4 letters) = R

(B) : M (-4 letters) = I (-4 letters) = E

(C) : T (+4 letters) = X (-8 letters) = P

(D) : R (-4 letters) = N (-4 letters) = J

=> Ans - (C)

Question 7

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

A 1/2

B 1/3

C 1/4

D 1/5

Answer: B

Explanation:

Result of 1/3 will be a non-terminating decimal, hence it is the odd one out.

=> Ans - (B)

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Question 8

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

A 897

B 969

C 888

D 432

**Answer: D**

**Explanation:**

Except for 432, the sum of digits of other number is 24, hence 432 is the odd one out.

=> Ans - (D)

**Question 9**

**A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series. Qutbuddin Aibak, Iltutmish, ?, Ghiyasuddin Balban**

- A Razia Sultana
- B Alauddin Khilji
- C Firoz Shah Tughlaq
- D Bahlol Lodi

**Answer: A**

**Explanation:**

Sequence according to timeline of the slave dynasty is given.

= Qutbuddin Aibak, Iltutmish, Razia Sultana, Ghiyasuddin Balban

=> 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. AB,EFG,KLMN,?**

- A TSUVW
- B STVUW
- C STUUV
- D RSTUV

**Answer: C**

**Explanation:**

Expression : AB,EFG,KLMN,?

The pattern between the first letter of next term and last letter of previous term is :

A B    E F G    K L M N    S T U V W  
    └───┘    └───┘    └───┘  
      +3        +4        +5

Thus, missing term = STUUV

=> Ans - (C)

## 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. AZ, BY, CX, ?**

- A KN
- B EV

C DW

D ED

Answer: C

**Explanation:**

$A + 1 = B$ ;  $B + 1 = C$ ;  $C + 1 = D$

$Z - 1 = Y$ ;  $Y - 1 = X$ ;  $X - 1 = W$

So, DW i.e. option C must be the answer.

**Question 12**

A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series.  
8,21,60,177,?

A 425

B 528

C 525

D 575

Answer: B

**Explanation:**

The pattern followed is :

$$8 \times 3 - 3 = 21$$

$$21 \times 3 - 3 = 60$$

$$60 \times 3 - 3 = 177$$

$$177 \times 3 - 3 = 528$$

=> Ans - (B)

**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.

**Statements:**

(I) Out of 100 people 87 do regular exercising and 35 restrain from unnecessary diet.

(II) These 100 people belong to metro city region.

**Conclusion:**

(I) 35 % people do exercising and dieting.

(II) In metro city region people are more health conscious.

A Only conclusion II follows

B Conclusion I and II both follow

C Neither I nor II follow

D Only conclusion I follows

Answer: C

**Explanation:**

35 restrain from unnecessary diet which means 35% people do dieting but we cannot say definitely that these 35 people are among the 87 people who do exercise. The 13 people who do not exercise maybe among the 35 people. Hence Conclusion I is false.

100 people belong to the metro city region who are health conscious but there is no information about remaining people of the city. Hence Conclusion II is false.

∴ Neither Conclusion I nor Conclusion II follows

Hence, the correct answer is Option C

## SSC CGL Free Mock Test (Latest Pattern)

### Question 14

Rahul's age is three times the age of Sumit. If Rahul is 15 years old presently, determine the age (in years) of Sumit after 12 years.

- A 16
- B 15
- C 10
- D 17

Answer: D

#### Explanation:

Rahul's present age = 15 years

Also, Rahul's age is three times the age of Sumit,  $\Rightarrow$  Sumit's present age =  $\frac{15}{3} = 5$  years

∴ Age (in years) of Sumit after 12 years =  $12 + 5 = 17$  years

$\Rightarrow$  Ans - (D)

### Question 15

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

- i. Preview
- ii. Preventive
- iii. Prefer
- iv. Preformation

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

Answer: C

#### Explanation:

As per the order of dictionary :

= Prefer  $\rightarrow$  Preformation  $\rightarrow$  Preventive  $\rightarrow$  Preview

$\equiv$  iii,iv,ii,i

$\Rightarrow$  Ans - (C)

### Question 16

In a certain code language, "BRING" is written as "25698" and "JAIL" is written as "4367". How is "BRINJAL" written in that code language?

- A 2566437

B 2569437

C 2569347

D 2659437

**Answer: B**

**Explanation:**

The codes for each letter is given :

B -> 2

R -> 5

I -> 6

N -> 9

J -> 4

A -> 3

L -> 7

Thus, BRINJAL : **2569437**

=> Ans - (B)

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

**Question 17**

In the following question, select the missing number from the give series

5	12	18
6	11	12
61	265	?

A 465

B 470

C 468

D 430

**Answer: C**

**Explanation:**

In each column, the number at the end is obtained by adding the squares of other numbers.

$$\text{Eg :- } 5^2 + 6^2 = 25 + 36 = 61$$

$$12^2 + 11^2 = 144 + 121 = 265$$

$$\text{Similarly, } 18^2 + 12^2 = 324 + 144 = 468$$

=> Ans - (C)

**Question 18**

If "A" means "subtraction", "B" means "division", "C" means "addition" and "D" means "multiplication", then  
305 B 5 A 28 C 43 D 12 = ?

A 569

B 549

C 560

D 530



**Answer: B**

**Explanation:**

Expression :  $305 \div 5 - 28 + 43 \times 12 = ?$

$$\equiv 305 \div 5 - 28 + 43 \times 12$$

$$= \left(\frac{305}{5}\right) + (-28) + (43 \times 12)$$

$$= 61 - 28 + 516 = 549$$

=> Ans - (B)

**Question 19**

Which set of letters when sequentially placed at the gaps in the given letter series shall complete it?

AB\_AB\_AA\_BB\_

A ABBA

B BBBB

C ABBB

D BBBA

**Answer: A**

**Explanation:**

The pattern followed is that the term 'ABA' is repeated with increase in B after each term.

= ABA ABBA ABBBA

=> Ans - (A)

## SSC CHSL Study Material

**Question 20**

Ram is facing towards the south. He turns to his left and moves 40 km, and then turns to his right and moves 50 km more. Finally, he turns to his left again and moves 60 km. Which direction is he facing now?

A East

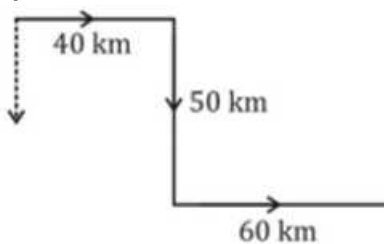
B West

C North

D South

**Answer: A**

**Explanation:**



Ram is facing towards the south. He turns to his left and moves towards east for 40 km, and then turns to his right and moves 50 km southwards. Finally, he turns to his left again and moves 60 km.

Thus, he is facing east direction in the end.

=> Ans - (A)

**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, V can be represented by 21, 40, etc., and U can be represented by 96, 67, etc. Similarly, you have to identify the set for the word CARRY.

**Matrix - I**

	0	1	2	3	4
0	R	A	R	Y	A
1	A	C	M	Q	H
2	U	Y	L	C	P
3	A	H	A	P	C
4	Y	A	C	Y	I

**Matrix - II**

	5	6	7	8	9
5	V	M	R	G	M
6	A	R	U	D	U
7	R	M	A	C	A
8	C	X	C	A	Y
9	M	U	Y	S	A

- A 42,65,57,13,86
- B 11, 99,12,43,68
- C 23,04,66,95,89
- D 34,79,00,66,97

**Answer: D**

**Explanation:**

- (A) : 42,65,57,13,86 = CARQX
- (B) : 11, 99,12,43,68 = CAMYD
- (C) : 23,04,66,95,89 = CARMY
- (D) : 34,79,00,66,97 = **CARRY**

=> Ans - (D)

**Question 22**

A man says to a lady, "Your father is the father-in-law of my father's only child." How is the lady related to the man?

- A Sisterinlaw
- B Granddaughter
- C Wife
- D Daughter

**Answer: C**

**Explanation:**

The man's father's only child = the man himself

Now, the lady's father is the man's father-in-law, => they are married.

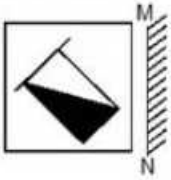
Thus, the lady is the man's wife.

=> Ans - (C)

## 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: A

#### Explanation:

If a mirror is placed on the line MN,

The facing of the figure to the left and right direction changes to opposite direction in mirror image(right facing changes to left and vice versa). There won't be change in shape of the figure in the mirror image.

The given figure is inclined towards left so the mirror image will be inclined towards right

∴ The mirror image of the given figure is

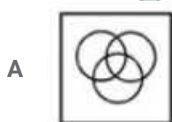


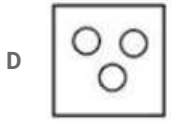
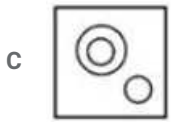
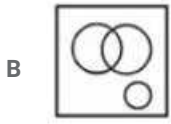
Hence, the correct answer is Option A

### Question 24

Identify the diagram that best represents the relationship among the given classes.

Vegetable, Park, Carrot





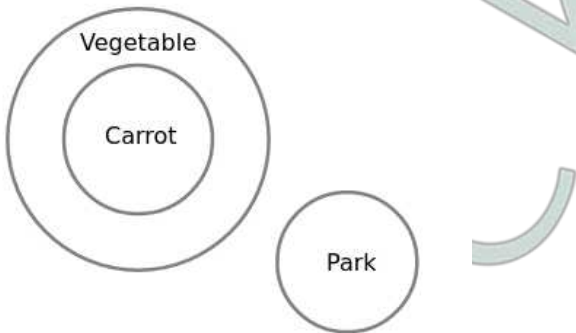
Answer: C

**Explanation:**

Carrot is a Vegetable

Park is not related to Carrot and Vegetable

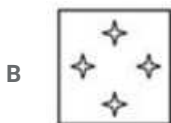
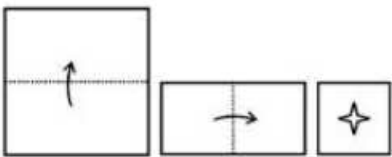
∴ The diagram that best represents the relationship between them is



Hence, the correct answer is Option 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.



D



Answer: A

**Explanation:**

When the paper is unfolded first to the left, a star will appear similarly on the left part.

When the paper is unfolded again to the bottom, two stars one each will appear similarly on bottom left and bottom right part of the paper.

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



Hence, the correct answer is Option A

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### General Awareness

**Instructions**

For the following questions answer them individually

**Question 26**

The command that merges the contents of one file to another is

- A APPEND
- B RENAME
- C RESTORE
- D ADD

Answer: A

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**Question 27**

Dishwasher was invented by .....

- A John Barber
- B Sir Henry Cole
- C Josephine Cochrane
- D Bartolomeo Cristofori

Answer: C

**Question 28**

Prothrombin, responsible for clotting of blood is released by.....

- A Small Intestine
- B Blood Platelets
- C Large Intestine
- D Heart

Answer: B

**Question 29**

Acacia arabica is the scientific name of

- A Neem
- B Teak
- C Babhul
- D Pomegranate

Answer: C

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**Question 30**

Cannis Vulpes is the scientific name of

- A Dog
- B Wolf
- C Fox
- D Hyena

Answer: C

**Question 31**

What is the pH of water?

- A 7
- B 5
- C 3
- D 1

Answer: A

**Question 32**

Solid carbon dioxide is known as .....

- A Hypo
- B Borax

C Alum

D Dry ice

Answer: D

## SSC Exam Update Videos & Free Study Material (YouTube Channel)

### Question 33

Oil paint was first used for Buddhist paintings by Indian and Chinese painters in western part of which country sometime between the fifth and tenth centuries?

A Iraq

B Afghanistan

C Pakistan

D India

Answer: B

### Question 34

Flamingo festival is celebrated in which state?

A Karnataka

B Kerala

C Andhra Pradesh

D Maharashtra

Answer: C

### Question 35

If for the year a country's GDP was \$990 million, consumer spending was \$630 million, investment by businesses was \$110 million, exports were \$55 million and imports were \$45 million, calculate government spending?

A \$260 million

B \$240 million

C \$480 million

D \$460 million

Answer: B

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### Question 36

In economic equilibrium, what is the condition of the supply and demand?

A supply is equal to the demand.

B the surplus is larger than the shortage.

C elasticity of demand equals elasticity of supply

D price elasticity of demand is unity

**Answer: A**

**Question 37**

**Beryl is an ore/mineral of**

A Nickel

B Beryllium

C Lead

D Tin

**Answer: B**

**Question 38**

**What is the Greenhouse Effect?**

A The fall in population of plants due to human activity

B It is the warming of earth's surface due to its atmosphere

C The polluting effect of burning fossil fuels

D The heating of the atmosphere due to depletion of the ozone layer

**Answer: B**

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**Question 39**

**The longest railway platform in India**

A Amritsar

B Gorakhpur

C Kathgodam

D Kanpur

**Answer: B**

**Question 40**

**In terms of size, Saturn ranks no. in our Solar System.**

A 1

B 2

C 3

D 4



**Answer: B**

**Question 41**

**Which of the following continents has the smallest land area?**

- A Antarctica
- B Europe
- C North America
- D South America

**Answer: B**

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**Question 42**

**Who built Jodhpur Fort?**

- A Guru Ramdas
- B Shah Jahan
- C Rao Jodha
- D Mahatma Gandhi

**Answer: C**

**Question 43**

**Battle of Panipat was fought in the year .....**

- A 1764
- B 1757
- C 1526
- D 1857

**Answer: C**

**Question 44**

**Name the first Indian to get Nobel prize in literature.**

- A Rabindranath Tagore
- B CV Raman
- C Lal Bahadur Shastri
- D Amartya Sen

**Answer: A**

## SSC CHSL Free Mock Test

Question 45

Atmospheric pressure is measured by .....

- A Barometer
- B Hexameter
- C Nanometer
- D Glaxometer

Answer: A

Question 46

Instrument for measuring rainfall is called

- A Lucimeter
- B Galactometer
- C Hyetometer
- D Hygrometer

Answer: C

Question 47

What is the total number of members in Rajya Sabha from States and Union Territories?

- A 218
- B 228
- C 238
- D 248

Answer: C

## SSC CHSL Prevoius Papers (DOWNLOAD PDF)

Question 48

The Look East Policy in India was started by which Prime Minister?

- A Rajiv Gandhi
- B Atal Bihari Vajpayee
- C P.V. Narasimha Rao
- D Manmohan Singh

Answer: C

Question 49

Who won the Gold Medal in 400m sprint in 2016 Summer Olympics?

- A Usain Bolt
- B Justin Gatlin
- C Andre De Grasse
- D Wayde van Niekerk

Answer: D

Question 50

Who wrote the book "The God of Small Things"?

- A Arundhati Roy
- B Anita Desai
- C Amartya Sen
- D Arun Shourie

Answer: A

## SSC CGL Previous Papers (DOWNLOAD PDF)

### English

#### Instructions

For the following questions answer them individually

Question 51

In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the idiom/phrase. Ignorance is bliss

- A Lack of knowledge is a curse
- B Sometimes it is better for you if you do not know all the facts
- C Fools believe they know more than the wise
- D To be truly happy one should ignore everything else

Answer: B

## SSC CGL Free Mock Test (Latest Pattern)

Question 52

Select the word with the correct spelling.

- A fidellity
- B befallen
- C probable

D salwager

Answer: C

**Question 53**

Improve the bracketed part of the sentence.  
Varun goes (for cinema) every Friday.

A to cinema

B to the cinema

C in cinema

D no improvement

Answer: B

**Question 54**

In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the idiom/phrase.  
Have a blast

A A party with very loud music

B To have peace amidst noise

C To have a lot of fun

D An explosion of happiness

Answer: C

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

**Question 55**

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.  
It is impossible to do this job.

A This job is impossible to be done.

B This job cannot be done with.

C No one can do this job.

D This job cannot be done by anyone.

Answer: A

**Question 56**

Select the word with the correct spelling.

A essoteric

B manerly

C sawsages

D dissolve

Answer: D

**Question 57**

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.

This is the time that you need to .....all your strength.

A muster

B build

C capture

D show

Answer: A

## SSC CHSL Study Material

**Question 58**

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'.

There is renewed sense(A)/of urgency in(B)/completing the project.(C)/No error(D)

A There is renewed sense

B of urgency in

C completing the project.

D No error

Answer: A

**Question 59**

In the following question, out of the four alternatives, select the alternative which is the best substitute of the phrase. to allay the sorrow or grief

A to lament

B to console

C distress

D solace

Answer: B

**Question 60**

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'.

Your motivational speech(A)/has had the tremendous(B)/effect on my students.(C)/No error(D)

A Your motivational speech

B has had the tremendous

C effect on my students.

D No error

Answer: B

## SSC CHSL Free App

Question 61

Rearrange the parts of the sentence in correct order.

A significant number

Pin the rural nonfarm sector

Qto be created

Rof these jobs will have

A QRP

B RQP

C PRQ

D PQR

Answer: B

Question 62

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.

The child looked up at her teacher, obviously afraid that she would further .....her.

A revere

B extol

C laud

D chastise

Answer: D

Question 63

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

Jyoti said to her sister, "The RBI is India's central bank".

A Jyoti told her sister the RBI was India's central bank.

B Jyoti told her sister that the RBI was India's central bank.

C Jyoti told her sister that the RBI is India's central bank.

D Jyoti told her sister the RBI is India's central bank.

Answer: C

## Daily Free SSC Practice Set

**Question 64**

Select the antonym of escort

- A entourage
- B cavalier
- C foe
- D convoy

**Answer: C**

**Question 65**

Select the synonym of to permeate

- A to desiccate
- B to imbue
- C torrid
- D stale

**Answer: B**

**Question 66**

Select the antonym of demon

- A spectre
- B angel
- C shadow
- D zombie

**Answer: B**

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**Question 67**

In the following question, out of the four alternatives, select the alternative which is the best substitute of the phrase. to teach a person to accept a set of beliefs uncritically

- A to drill
- B to instill
- C to indoctrinate
- D to convince

**Answer: C**

**Question 68**

Improve the bracketed part of the sentence  
Mr. Shah (is having) two houses.

- A has
- B got
- C has been having
- D no improvement

**Answer: A**

**Question 69**

Select the synonym of swine

- A hog
- B simple
- C immaculate
- D shine

**Answer: A**

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**Question 70**

Rearrange the parts of the sentence in correct order

By doing so, it

brought it closer

to cultural and social life

has redefined politics and

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

**Answer: A**

**Instructions**

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.

Anti-apartheid activist Desmond Tutu is even more hardheaded when he says, "In almost .....(1) language, the most difficult words are 'I am sorry'." Mr. Tutu adds that .....(2) reconciliations can only lead to spurious healing. ....(3) his forgiveness is a wager, an ethical wager on the future of .....(4) relationship. This is why the few events of apology which stand up to .....(5) scrutiny deserve to be treasured.

**Question 71**

(1)



- A each
- B all
- C any
- D every

**Answer: D**

**Question 72**

(2)

- A artificial
- B phony
- C spurious
- D bogus

**Answer: C**

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**Question 73**

(3)

- A For
- B To
- C By
- D About

**Answer: A**

**Question 74**

(4)

- A the
- B a
- C them
- D him

**Answer: B**

**Question 75**

(5)

- A critical
- B sarcastic

C cynical

D satirical

Answer: A

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## Mathematics

### Instructions

For the following questions answer them individually

### Question 76

If  $(\operatorname{cosec}A - 1)/(\operatorname{cosec}A + 1) = x$ , then the value of  $x$  is

A  $(\sin A)/(1 + \cos A)^2$

B  $\cos A/(1 + \sin A)$

C  $(\cos A)/(1 + \sin A)^2$

D  $\sin A/(1 + \cos A)$

Answer: C

### Explanation:

Expression :  $\frac{\operatorname{cosec}A - 1}{\operatorname{cosec}A + 1}$

$$= \left( \frac{1}{\sin A} - 1 \right) \div \left( \frac{1}{\sin A} + 1 \right)$$

$$= \left( \frac{1 - \sin A}{\sin A} \right) \div \left( \frac{1 + \sin A}{\sin A} \right)$$

$$= \left( \frac{1 - \sin A}{\sin A} \right) \times \left( \frac{\sin A}{1 + \sin A} \right)$$

$$= \frac{1 - \sin A}{1 + \sin A}$$

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

$$= \frac{1 - \sin A}{1 + \sin A} \times \frac{(1 + \sin A)}{(1 + \sin A)}$$

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

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

=> Ans - (C)

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### Question 77

Product of  $6ab$ ,  $3b$  and  $4a$  is

A  $72a^2b^2$

B  $144ab$

C  $72ab$

D  $144a^2b^2$

Answer: A

Explanation:

Product of :  $6ab$ ,  $3b$  and  $4a$

$$= (6 \times 3 \times 4) \times (ab \times b \times a)$$

$$= 72a^2b^2$$

=> Ans - (A)

Question 78

An octahedron has 6 vertices. How many edges does it have?

A 8

B 12

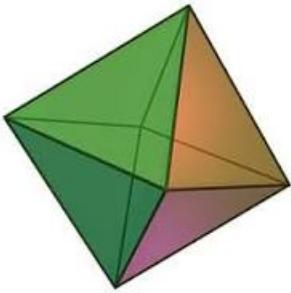
C 6

D 10

Answer: B

Explanation:

Octahedron :



Euler's formula :  $V + F - E = 2$  where  $V$  is number of vertices ,  $F$  is number of faces and  $E$  is number of edges.

Octahedron has 6 vertices and 8 faces.

$$\Rightarrow E = V + F - 2 = 6 + 8 - 2$$

$$\Rightarrow E = 14 - 2 = 12$$

=> Ans - (B)

Question 79

By increasing the price of entry ticket to a fair in the ratio 5:7, the number of visitors to the fair has decreased in the ratio 11:9. In what ratio has the total collection increased or decreased?

A increased in the ratio 55:63

B decreased in the ratio 63:55

C increased in the ratio 45:77

D decreased in the ratio 77:45

Answer: A

Explanation:

Let cost of original ticket = Rs 5 and number of visitors = 110

$$\Rightarrow \text{Original revenue} = 5 \times 110 = \text{Rs } 550$$

After increase in cost of ticket

New cost of ticket = Rs 7 and number of visitors = 90

=> New Revenue =  $7 \times 90 = \text{Rs } 630$

Since, new revenue is greater than original revenue, thus total collection has increased.

$\therefore$  Increase of total collection ratio =  $\frac{550}{630} = 55 : 63$

=> Ans - (A)

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### Question 80

The largest 5 digit number exactly divisible by 84 is:

A 99960

B 99955

C 99952

D 99956

Answer: A

#### Explanation:

Largest 5 digit number = 99999

If 99999 is divided by 84, =>  $99999 = 84 \times 1190 + 39$

Quotient is 1190 and remainder is 39

Thus, largest 5 digit number which is divisible by 84 =  $99999 - 39$

= 99960

=> Ans - (A)

### Question 81

If  $3x + 2 \geq x - 1$  and  $2x - 4 \leq 2 - x/3$ ; then x can take which of the following values?

A -2

B 3

C 5

D 1

Answer: D

#### Explanation:

Expression 1 :  $3x + 2 \geq x - 1$

=>  $3x - x \geq -1 - 2$

=>  $2x \geq -3$

=>  $x \geq \frac{-3}{2}$  -----(i)

Expression 2 :  $2x - 4 \leq 2 - x/3$

=>  $2x + \frac{x}{3} \leq 2 + 4$

=>  $\frac{7x}{3} \leq 6$

=>  $x \leq \frac{18}{7}$  -----(ii)

Combining inequalities (i) and (ii), we get :  $\frac{-3}{2} \leq x \leq \frac{18}{7}$

The only value that  $x$  can take among the options = 1

=> Ans - (D)

#### Question 82

What is the length of the side of a regular hexagon, if its area is  $54\sqrt{3}$  sq cm?

A 12 cm

B 9 cm

C 6 cm

D 15 cm

Answer: C

#### Explanation:

Let side of regular hexagon =  $a$  cm

Area of regular hexagon =  $\frac{3\sqrt{3}}{2} a^2$

$$\Rightarrow \frac{3\sqrt{3}}{2} a^2 = 54\sqrt{3}$$

$$\Rightarrow a^2 = 54 \times \frac{2}{3} = 36$$

$$\Rightarrow a = \sqrt{36} = 6 \text{ cm}$$

=> Ans - (C)

### SSC CHSL Free Mock Test

#### Question 83

If  $\cot \pi/3 - \tan \pi/4 = x$ , then the value of  $x$  is

A  $\sqrt{3}+2$

B  $(1-\sqrt{3})/\sqrt{3}$

C  $(1-\sqrt{2})/\sqrt{2}$

D  $(\sqrt{3}+2)/2\sqrt{3}$

Answer: B

#### Explanation:

Expression :  $\cot \pi/3 - \tan \pi/4 = x$

$$= \cot(60) - \tan(45)$$

$$= \frac{1}{\sqrt{3}} - 1$$

$$= \frac{1-\sqrt{3}}{\sqrt{3}}$$

=> Ans - (B)

#### Question 84

The effective annual rate of interest corresponding to a nominal rate of 19% per annum payable halfyearly is:

A 38 percent

- B 19.9 percent
- C 39.81 percent
- D 19 percent

**Answer: B**

**Explanation:**

Let sum be = Rs.  $100x$

Rate of interest = 19% under compound interest half yearly

$$\text{Amount after 1 year} = P\left(1 + \frac{R}{2 \times 100}\right)^{2 \times T}$$

$$= 100x\left(1 + \frac{19}{200}\right)^{2 \times 1}$$

$$= 100x\left(\frac{219}{200}\right)^2 = \frac{219 \times 219 \times x}{400}$$

$$= \text{Rs. } 119.9x$$

$$\Rightarrow \text{Compound Interest} = \text{Rs. } (119.9x - 100x) = \text{Rs. } 19.9x$$

$$\therefore \text{Effective rate of interest} = \frac{19.9x}{100x} \times 100$$

$$= 19.9\%$$

$\Rightarrow$  Ans - (B)

**Question 85**

In the first 38 overs of a cricket match, the run rate was 4.5 runs/over. Calculate the required run rate in the remaining 12 overs to reach the target of 288 runs?

- A 10.35
- B 10.95
- C 9.75
- D 9.15

**Answer: C**

**Explanation:**

Run rate in 38 overs = 4.5 runs/over

$$\Rightarrow \text{Runs scored in 38 overs} = 38 \times 4.5 = 171$$

$$\text{Runs needed to score in 12 overs} = 288 - 171 = 117$$

$$\Rightarrow \text{Run rate required} = \frac{117}{12} = 9.75$$

$\Rightarrow$  Ans - (C)

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

**Question 86**

The sum of the ages of husband and wife at present is 56. Ten years ago the product of their ages was 320. What is the age of the husband and the wife?

- A 28, 28
- B 32, 24
- C 30, 26

D 29, 27

Answer: C

Explanation:

Let husband's age =  $x$  years

=> Wife's age =  $(56 - x)$  years

According to ques,  $(x - 10)(56 - x - 10) = 320$

=>  $(x - 10)(46 - x) = 320$

=>  $46x - x^2 - 460 + 10x = 320$

=>  $x^2 - 56x + 780 = 0$

=>  $x^2 - 30x - 26x + 780 = 0$

=>  $x(x - 30) - 26(x - 30) = 0$

=>  $(x - 30)(x - 26) = 0$

=>  $x = 30, 26$

∴ Ages of the husband and the wife = 30 and 26 years

Question 87

If 27% of an electricity bill is deducted, Rs 1825 is still to be paid. How much was the bill?

A Rs 1437

B Rs 2536

C Rs 2500

D Rs 1473

Answer: C

Explanation:

Let the original bill amount = Rs.  $100x$

If 27% of an electricity bill is deducted, bill left =  $\frac{100-27}{100} \times 100x = 73x$

According to ques, =>  $73x = 1825$

=>  $x = \frac{1825}{73} = 25$

∴ Original bill amount =  $100 \times 25 = \text{Rs.}2500$

=> Ans - (C)

Question 88

If  $\sec A = x$ , then the value of  $x$  is

A  $\sqrt{1 - \cot^2 A}$

B  $\sqrt{1 - \tan^2 A}$

C  $\sqrt{1 + \cot^2 A}$

D  $\sqrt{1 + \tan^2 A}$

Answer: D

Explanation:

Expression :  $\sec A = x$

$$\therefore \sec^2 A - \tan^2 A = 1$$

$$\Rightarrow \sec^2 A = 1 + \tan^2 A$$

$$\Rightarrow \sec A = \sqrt{1 + \tan^2 A}$$

$\Rightarrow$  Ans - (D)

## SSC CGL Previous Papers (DOWNLOAD PDF)

### Question 89

The costs of daily ticket of local train is Rs 130 and Monthly Pass costs Rs 3091.40. If I buy the Monthly Pass and travel for 29 days in a month than I save (in percentage)?

- A 16 percent
- B 18 percent
- C 15 percent
- D 14 percent

Answer: B

#### Explanation:

Train ticket cost for 1 day = Rs. 130

$$\Rightarrow \text{Cost for 29 days} = 29 \times 130 = \text{Rs. } 3770$$

Cost of monthly pass = Rs. 3091.40

$$\Rightarrow \text{Money saved} = 3770 - 3091.40 = \text{Rs } 678.6$$

$$\therefore \text{Required \%} = \frac{678.6}{3770} \times 100 = 18\%$$

$\Rightarrow$  Ans - (B)

### Question 90

A vendor buys some lemons at the rate of 11 for Rs 10 and sells at the rate of 4 for Rs 5. What will be the result?

- A 37.5 percent loss
- B 27.27 percent gain
- C 37.5 percent gain
- D 27.2 percent loss

Answer: C

#### Explanation:

The vendor buys 11 lemons for Rs. 10

$$\Rightarrow \text{Cost price of 1 lemon} = \frac{10}{11} = \text{Rs } 0.90$$

He sells 4 lemons for Rs. 5

$$\Rightarrow \text{Selling price of 1 lemon} = \frac{5}{4} = \text{Rs } 1.25$$

$\therefore$  Selling price is more than Cost price, the vendor earns a profit

$$\Rightarrow \text{Profit \%} = \frac{(1.25 - 0.90)}{0.90} \times 100$$

$$= 37.5\%$$



=> Ans - (C)

**Question 91**

If  $7x - 5y = 13$  and  $2x - y = 5$ , then  $(x - y)$  is

- A 3
- B 4
- C 5
- D 1

**Answer: D**

**Explanation:**

Equation 1 :  $7x - 5y = 13$

Equation 2 :  $2x - y = 5$

Multiplying equation (ii) by 5 and subtracting equation (i) from it, we get :

$$\Rightarrow (10x - 7x) = (25 - 13)$$

$$\Rightarrow 3x = 12$$

$$\Rightarrow x = \frac{12}{3} = 4$$

Substituting it in equation (ii),  $\Rightarrow y = 2(4) - 5$

$$\Rightarrow y = 8 - 5 = 3$$

$$\therefore (x - y) = 4 - 3 = 1$$

=> Ans - (D)

## SSC CGL Free Mock Test (Latest Pattern)

**Question 92**

The perimeters of a square and an equilateral triangle are equal. If the diagonal of the square is 9 cm, what is the area of the equilateral triangle?

- A  $18\sqrt{3}$  sq cm
- B  $9\sqrt{3}$  sq cm
- C  $18\sqrt{2}$  sq cm
- D  $9\sqrt{2}$  sq cm

**Answer: A**

**Explanation:**

Let the side of square =  $s$  cm and diagonal,  $d = 9$  cm

$$\Rightarrow (s)^2 + (s)^2 = (d)^2$$

$$\Rightarrow 2s^2 = 9^2 = 81$$

$$\Rightarrow s^2 = \frac{81}{2}$$

$$\Rightarrow s = \sqrt{\frac{81}{2}} = \frac{9}{\sqrt{2}}$$

Thus, perimeter of square =  $4s$

$$= 4 \times \frac{9}{\sqrt{2}} = 18\sqrt{2} \text{ cm}$$

Also, perimeter of square = Perimeter of equilateral triangle =  $18\sqrt{2}$  cm

Let side of equilateral triangle =  $a$  cm

$$\Rightarrow 3a = 18\sqrt{2}$$

$$\Rightarrow a = \frac{18\sqrt{2}}{3} = 6\sqrt{2} \text{ cm}$$

$$\therefore \text{Area of equilateral triangle} = \frac{\sqrt{3}}{4} a^2$$

$$= \frac{\sqrt{3}}{4} \times (6\sqrt{2})^2$$

$$= 18\sqrt{3} \text{ cm}^2$$

$\Rightarrow$  Ans - (A)

### Question 93

A thief is stopped by a policeman from a distance of 350 metres. When the policeman starts the chase, the thief also starts running. Assuming the speed of the thief as 7 km/h and that of police man as 12 km/h, how far the thief would have run, before he is overtaken?

A 490 metres

B 392 metres

C 588 metres

D 294 metres

Answer: A

### Explanation:

Since the thief is escaping from the police man, thus they both are running in same direction.

Speed of thief = 7 km/hr and speed of policeman = 12 km/hr

$\Rightarrow$  Relative speed =  $12 - 7 = 5$  km/hr

Distance between them = 350 metres = 0.35 km

$\Rightarrow$  Time taken =  $\frac{\text{distance}}{\text{speed}}$

$$= \frac{0.35}{5} = \frac{7}{100} \text{ hr}$$

$\therefore$  Distance covered by thief before he was caught =  $7 \times \frac{7}{100}$

= 0.49 km = 490 metres

$\Rightarrow$  Ans - (A)

### Question 94

Painter 'A' can paint a house in 10 days and 'B' can do it in 20 days. With help of 'C', they did the job in 5 days only. Then, 'C' alone can do the job in:

A 20 days

B 10 days

C 40 days

D 50 days

Answer: A

**Explanation:**

Let total work to be done = 100 units

Painter 'A' can paint a house in 10 days and 'B' can do it in 20 days

$$\Rightarrow \text{A's efficiency} = \frac{100}{10} = 10 \text{ units/day}$$

$$\text{B's efficiency} = \frac{100}{20} = 5 \text{ units/day}$$

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

According to ques, all of them complete the job in 5 days

$$\Rightarrow (10 + 5 + x) \times 5 = 100$$

$$\Rightarrow x + 15 = \frac{100}{5} = 20$$

$$\Rightarrow x = 20 - 15 = 5$$

$$\therefore \text{Time taken by C alone to do the job} = \frac{100}{5} = 20 \text{ days}$$

$\Rightarrow$  Ans - (A)

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

**Question 95**

What is the slope of the line parallel to the line passing through the points (4,6) and (2,3) ?

A -3/2

B -2

C 2

D 3/2

**Answer:** D

**Explanation:**

Slope of line passing through points (2,3) and (4,6)

$$= \frac{6-3}{4-2} = \frac{3}{2}$$

Slope of two parallel lines is always equal.

$$\Rightarrow \text{Slope of the line parallel to the line having slope } \frac{3}{2} = \frac{3}{2}$$

$\Rightarrow$  Ans - (D)

**Question 96**

The total surface area of a cuboid is 376 sq cm. Find its volume if its length and breadth are 10 cm and 8 cm respectively?

A 960 cubic cms

B 240 cubic cms

C 480 cubic cms

D 720 cubic cms

**Answer:** C

**Explanation:**

Let height of the cuboid =  $h$  cm

Length,  $l = 10$  cm and breadth,  $b = 8$  cm

$$\text{Total surface area of cuboid} = 2(lb + bh + hl) = 376$$

$$\Rightarrow 2[(10 \times 8) + (8 \times h) + (h \times 10)] = 376$$

$$\Rightarrow 80 + 18h = \frac{376}{2} = 188$$

$$\Rightarrow 18h = 188 - 80 = 108$$

$$\Rightarrow h = \frac{108}{18} = 6$$

$$\therefore \text{Volume of cuboid} = lbh$$

$$= 10 \times 8 \times 6 = 480 \text{ cm}^3$$

$\Rightarrow$  Ans - (C)

#### Question 97

Refer the below data table and answer the following question.

	Quantity of stock	Average Cost
Mobile phones	47	11000
Cameras	60	9000
TVs	21	43000
Refrigerators	31	60000
Acs	82	22000

What is the value of total stock in lakh rupees

A 562.4

B 145

C 56.24

D 241

**Answer: C**

#### Explanation:

$$\text{Total cost of mobiles} = 47 \times 11000 = \text{Rs. } 5,17,000$$

$$\text{Total cost of Cameras} = 60 \times 9000 = \text{Rs. } 5,40,000$$

$$\text{Total cost of TVs} = 21 \times 43000 = \text{Rs. } 9,03,000$$

$$\text{Total cost of Refrigerator} = 31 \times 60000 = \text{Rs. } 18,60,000$$

$$\text{Total cost of AC} = 82 \times 22000 = \text{Rs. } 18,04,000$$

$$\therefore \text{Total cost} = 5,17,000 + 5,40,000 + 9,03,000 + 18,60,000 + 18,04,000 = \text{Rs. } 56,24,000$$

$$\text{Total cost in lakhs} = \text{Rs } 56.24 \text{ lakhs}$$

$\Rightarrow$  Ans - (C)

**SSC CHSL Study Material**

Question 98

Refer the below data table and answer the following question.

Year	Ratio Import/Export
2011	0.7
2012	1.1
2013	0.9
2014	1.2
2015	1

If the imports in 2012 was Rs. 1500 crores and the total exports in the years 2012 and 2013 together was Rs. 2000 crores, then the imports in 2013 was?

- A 573
- B 636
- C 1364
- D 707

Answer: A

**Explanation:**

Imports in 2012 = Rs. 1500 crores

Let Exports in 2012 = Rs.  $y$  crores

Ratio of imports and exports in 2012 = 1.1

$$\Rightarrow \frac{1500}{y} = 1.1$$

$$\Rightarrow y = \frac{1500}{1.1} = 1363.63$$

Total exports in the years 2012 and 2013 together = Rs. 2000 crores

$\Rightarrow$  Exports in 2013 = Rs.  $(2000 - 1363.63)$  crores = Rs 636.37 crores

Let imports in 2013 = Rs.  $x$  crores

Ratio of imports and exports in 2013 =  $\frac{x}{636.37} = 0.9$

$$\Rightarrow x = 636.37 \times 0.9 = 572.733 \approx 573$$

$\therefore$  Imports in 2013 was Rs. 573 crores

$\Rightarrow$  Ans - (A)

Question 99

Refer the below data table and answer the following question.

Measured on Birthday	Height of the child
4	100
5	105
6	115
7	125
8	130
9	135
10	140
11	150
12	160
13	170
14	180
15	185
16	195

What was the increase in the height of the child from the 7th birthday to the 13 birthday ?

- A 55 cms
- B 50 cms
- C 45 cms
- D 40 cms

**Answer: C**

**Explanation:**

Height on 7th birthday = 125 cm

Height on 13th birthday = 170 cm

Increase in height = 170 - 125 = 45 cm

=> Ans - (C)

**Question 100**

Refer the below data table and answer the following question.

Deep Sleep	10
Dreaming	25
Light Sleep	10
Extremely Light Sleep	10
Awake	45

Between 10pm to 6am, a fitness band records the following data. How long was the user in Deep Sleep or was in Extremely light sleep ?

- A 3.1 hours
- B 1.1 hours
- C 1.6 hours
- D 2.1 hours

**Answer: C**

**Explanation:**

Total time between 10 pm to 6 am = 8 hours

% time spent in Deep Sleep or in Extremely light sleep = 10 + 10 = 20 %

=> Time spent in Deep Sleep or in Extremely light sleep =  $\frac{20}{100} \times 8$

=  $\frac{8}{5} = 1.6$  hours

=> Ans - (C)

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