



SSC CHSL 10 Jan 2017 Afternoon Shift

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, or stored in any retrieval system of any nature without the permission of cracku.in, application for which shall be made to support@cracku.in

Reasoning

Instructions

For the following questions answer them individually

Question 1

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

Opposite : Identical :: Lengthy : ?

- A Tedious
- B Longish
- C Elongated
- D Short

Answer: D

Explanation:

Opposite and identical are antonyms, similarly antonym of lengthy is *short*.

=> Ans - (D)

25 SSC CHSL Mocks for just Rs. 149

Question 2

Select the related word/letters/number from the given alternatives. GT : IV :: KX : ?

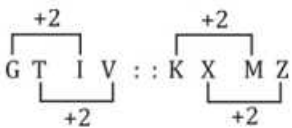
- A FS
- B MZ
- C DQ
- D BO

Answer: B

Explanation:

Expression = GT : IV :: KX : ?

The pattern followed is :



Thus, KX : MZ

=> Ans - (B)

Question 3

Select the related word/letters/number from the given alternatives. BCD : YXW :: FGH :: ?

- A UTS
- B RQP
- C STU

D TUS

Answer: A

Explanation:

Expression = BCD : YXW :: FGH : ?

Alphabets at the corresponding position from the *reverse* end are written.

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
↓ ↓ ↓ ... ↓ ↓ ↓
Z Y X W V U T S R Q P O N M L K J I H G F E D C B A

Similarly, FGH : UTS

=> Ans - (A)

Question 4

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

66 : 36 :: 99 : ?

A 18

B 27

C 81

D 108

Answer: C

Explanation:

Expression = 66 : 36 :: 99 : ?

The pattern followed is = $x : \left(\frac{x}{11}\right)^2$

Eg :- $66 : \left(\frac{66}{11}\right)^2 = 66 : 36$

Similarly, $99 : \left(\frac{99}{11}\right)^2 = 99 : 81$

=> Ans - (C)

SSC CHSL Free Mock Test

Question 5

Find out the odd word/letters/number/number pair from the given alternatives.

A Tiger

B Jaguar

C Leopard

D Fox

Answer: D

Explanation:

Tiger, jaguar and leopard belong to the cat family, hence fox is the odd one out.

=> Ans - (D)

Question 6

Find out the odd word/letters/number/number pair from the given alternatives.

- A YXW
- B LKJ
- C RQP
- D MNO



Answer: D

Explanation:

Except MNO, other three are consecutive letters from English alphabets in reverse order, hence MNO is the odd one out.

=> Ans - (D)

Question 7

Find out the odd word/letters/number/number pair from the given alternatives.

7 : 50 :: 9 : ?

- A 37
- B 82
- C 17
- D 90

Answer: B

Explanation:

Expression : 7 : 50 :: 9 : ?

The pattern followed is = $x : x^2 + 1$

Eg :- $7 : 7^2 + 1 = 7 : 50$

Similarly, $9^2 + 1 = 81 + 1 = 82$

=> Ans - (B)

SSC CHSL Previous Papers (DOWNLOAD PDF)

Question 8

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

23 : 8 :: 62 : ?

- A 8
- B 36
- C 12
- D 40

Answer: B

Explanation:

Expression = 23 : 8 :: 62 : ?

The pattern followed is = $(2)^3 = 8$

Similarly, $6^2 = 36$

=> Ans - (B)

Question 9

A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series. ? , Microgram, Milligram, Gram

- A Kilogram
- B Tonne
- C Quintal
- D Nanogram

Answer: D

Explanation:

Size in increasing order is given.

= Nanogram -> Microgram -> Milligram -> Gram

=> Ans - (D)

Question 10

A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series. BC, GHI, NOPQ, ?

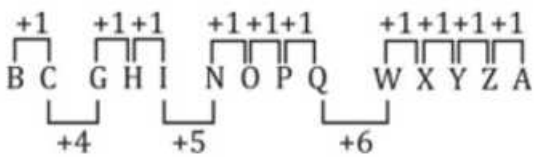
- A BCDEF
- B UVWXY
- C WXYZA
- D STUVW

Answer: C

Explanation:

Expression : BC, GHI, NOPQ, ?

The pattern followed is :



Thus, missing term = WXYZA

=> 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. DE, BG, YJ, ?

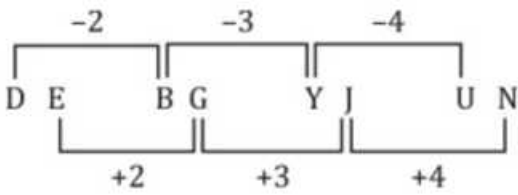
- A ST
- B RQ
- C XY
- D UN

Answer: D

Explanation:

Expression : DE, BG, YJ, ?

The pattern followed is :



Thus, missing term = UN

=> Ans - (D)

Question 12

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) Some crows are jackals.

(II) No fox is a crow.

Conclusions:

(I) Some jackals are foxes.

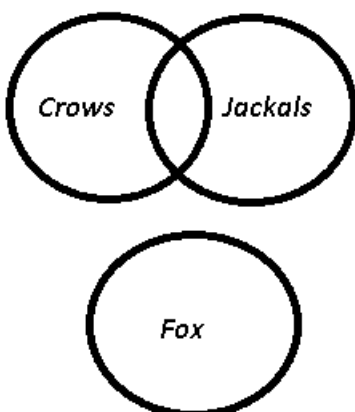
(II) Some jackals are not foxes

- A Conclusion I follows
- B Conclusion II follows
- C Either I and II follows
- D Both I and II follows

Answer: C

Explanation:

The venn diagram for above statements is :



Conclusions:

(I) Some jackals are foxes = may or may not be true

(II) Some jackals are not foxes = may or may not be true

Thus, either I and II follows.

=> Ans - (C)

Question 13

A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series.
2, 10, 30, 68, ?

- A 130
- B 135
- C 140
- D 120

Answer: A

Explanation:

The pattern followed is :

$$1^3 + 1 = 2$$

$$2^3 + 2 = 10$$

$$3^3 + 3 = 30$$

$$4^3 + 4 = 68$$

$$5^3 + 5 = 130$$

=> Ans - (A)

SSC CGL Free Mock Test (Latest Pattern)

Question 14

The average of the ages of Rajan and his son is 20. If Rajan's present age is three times the age of his son, then what will be the age of Rajan 5 years from now?

- A 40 years
- B 28 years
- C 35 years
- D 25 years

Answer: C

Explanation:

Let Rajan's son's present age = x years

=> Rajan's age = $3x$ years

According to ques, average ages = $\frac{(x+3x)}{2} = 20$

$$\Rightarrow 4x = 20 \times 2 = 40$$

$$\Rightarrow x = \frac{40}{4} = 10$$

\therefore Rajan's age 5 years from now = $3(10) + 5 = 35$ years

=> Ans - (C)

Question 15

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

- i. Nuzzled
- ii. Nozzle
- iii. Nonjury
- iv. Nocking

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

Answer: D

Explanation:

As per the order of dictionary :

= Nocking -> Nonjury -> Nozzle -> Nuzzled

≡ iv, iii, ii, i

=> Ans - (D)

Question 16

In a certain code language, "BISLERI" is written as "IREBISL". How is "PANTHER" written in that code language?

- A REHPANT
- B REPHANT
- C REHTNAP
- D REHNAPT

Answer: A

Explanation:

"BISLERI" is written as "IREBISL"

The word is divided into two parts of 4 and 3 letters respectively = (BISL) (ERI), now both the parts are swapped and the second part is also reversed. Code = (IRE) (BISL)

Similarly, for PANTHER = (PANT) (HER), second part is reversed and swapped.

Thus, PANTHER : **REHPANT**

=> Ans - (A)

SSC CHSL Important Questions and Answers (Download PDF)

Question 17

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

7	2	49
8	3	512
11	?	1331

- A 3

- B 2
- C 4
- D 5

Answer: A

Explanation:

In each row, for the numbers, a , b and c , pattern is : $a^b = c$

Eg :- $7^2 = 49$ and $8^3 = 512$

Similarly, $(11)^x = 1331 = (11)^3$

$\Rightarrow x = 3$

\Rightarrow Ans - (A)

Question 18

If "S" denotes "multiplied by", "V" denotes "subtracted from", "M" denotes "added to" and "L" denotes "divided by", then $7 V 42 M 56 L 8 S 5 = ?$

- A 8
- B 12
- C 20
- D 0

Answer: D

Explanation:

Expression : $7 V 42 M 56 L 8 S 5 = ?$

$$\equiv 7 - 42 + 56 \div 8 \times 5$$

$$= -35 + (7 \times 5)$$

$$= -35 + 35 = 0$$

\Rightarrow Ans - (D)

Question 19

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

- A KKJLM
- B KKJML
- C KKMLJ
- D KMKLJ

Answer: B

Explanation:

The pattern followed is :

= JK JKL JKLM JKLMN

\Rightarrow Ans - (B)

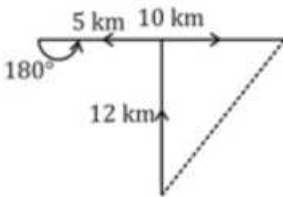
Question 20

A travels 12 km towards north and then takes a left turn and covers another 5 km. From there, he turns 180° anticlockwise and travels 10 km further. What is the minimum distance between his initial and final position?

- A 8 km
- B 13 km
- C 6 km
- D 12 km

Answer: B

Explanation:



A travels 12 km towards north and then takes a left turn and covers another 5 km towards west direction. From there, he turns 180° anticlockwise, i.e. will revert his direction and travels 10 km further towards east.

Thus, the minimum distance between his initial and final position = $\sqrt{(12)^2 + (5)^2}$
 $= \sqrt{144 + 25} = \sqrt{169} = 13 \text{ km}$

=> 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. 'N' can be represented by 34, 43 etc. and 'H' can be represented by 56, 67 etc. Similarly, you have to identify the set for the word 'TEMP'.

Matrix - I

	0	1	2	3	4
0	P	I	E	K	U
1	I	F	D	U	K
2	E	P	F	E	E
3	I	U	D	F	N
4	P	I	D	N	P

Matrix - II

	5	6	7	8	9
5	T	H	L	M	L
6	J	T	H	H	M
7	C	C	L	M	C
8	J	C	M	T	H
9	L	J	O	O	T

- A 55, 23, 78, 44
- B 66, 24, 58, 59
- C 88, 86, 69, 95
- D 99, 02, 87, 22

Answer: A

Explanation:

- (A) : 55, 23, 78, 44 = **TEMP**
- (B) : 66, 24, 58, 59 = TEML
- (C) : 88, 86, 69, 95 = TCML
- (D) : 99, 02, 87, 22 = TEMF

=> Ans - (A)

Question 22

While introducing a boy, Raju says, "He is the son of my wife's sister." How is the boy related to Raju?

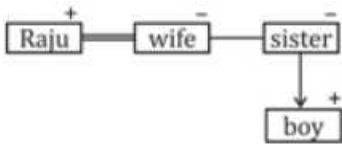
- A Brother
- B Nephew
- C Cousin
- D Son

Answer: B

Explanation:

Raju's wife's sister = Raju's sister-in-law

Relation is :



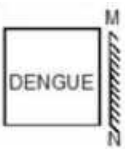
Thus, the boy is Raju's nephew.

=> Ans - (B)

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 ?



- A
- B
- C
- D

Answer: C

Explanation:

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

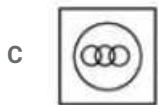
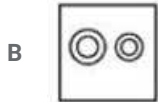
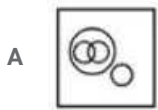
So the alphabets at the left will be reversed and appear at right and vice-versa, all options follow this.

Also, the shape of the alphabets will also be reversed, in the first and last options, 'E' is not changed hence they are eliminated, thus third option is the right image.

=> Ans - (C)

Question 24

Identify the diagram that best represents the relationship among the given classes. Brain, Cerebrum, Liver, Human body



Answer: D

Explanation:

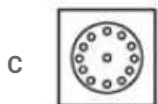
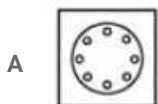
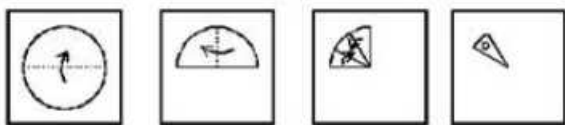
Cerebrum is part of the brain which is part of the human body, also liver (different from brain) is also part of human body, hence the venn diagram that best describes above relation is :



=> Ans - (D)

Question 25

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



D



Answer: B

Explanation:

When the paper is unfolded first, two circles will appear on the adjacent sectors.

When the paper is unfolded for second time to the right, three circles will appear similarly on the right part.

When the paper is unfolded again to the bottom, six circles will appear similarly on the bottom part of the paper.

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



Hence, the correct answer is Option B

Daily Free SSC Practice Set

General Awareness

Instructions

For the following questions answer them individually

Question 26

How many bits does an IP address contain?

- A 64 bits
- B 32 Bits
- C 128 Bits
- D 256 Bits

Answer: B

Free SSC Study Material (18,000 Solved Questions)

Question 27

Steam Engine was invented by?

- A Simon Stevin
- B George Stephenson
- C Gary Starkweather
- D Percy Spencer

Answer: B

Question 28

Medulla oblongata is a part of which of the following?

- A Heart

- B Brain
- C Lungs
- D Stomach

Answer: B

Question 29

.....is a typically onecelled, reproductive unit capable of giving rise to a new individual without sexual fusion.

- A Egg
- B Spore
- C Sperm
- D Seed

Answer: B

1500+ Very Important Free SSC Solved Questions

Question 30

Bacteria was discovered by

- A Antonie van Leeuwenhoek
- B Belarus
- C Hugo de Vries
- D Robert Brown

Answer: A

Question 31

Which among the following is false about alpha particles?

- A They have high ionizing power
- B They have high penetrating power
- C They have high kinetic energy
- D They are positively charged helium nuclei

Answer: B

Question 32

Which among the following is not a characteristic of oxidation reaction?

- A It involves addition of hydrogen
- B It involves addition of oxygen
- C It involves loss of electrons

D It involves addition of electronegative element

Answer: A

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

Question 33

Chandragiri Fort is a historical fort, built in the 11th century. It is located in

- A Karnataka
- B Maharashtra
- C Madhya Pradesh
- D Andhra Pradesh

Answer: D

Question 34

Mohiniyattam is a dance form of which state?

- A Andhra Pradesh
- B Assam
- C Kerala
- D Tripura

Answer: C

Question 35

Irfaan loves black coffee. A roadside stall selling a cup of black coffee at Rs. 120, offered 25% discount to Irfaan. If Irfaan was willing to pay even Rs. 200 for that coffee, Irfaan's consumer surplus is

- A 90
- B 80
- C 30
- D 110

Answer: D

Explanation:

Marked price = Rs. 120

Discount % = 25%

$$\Rightarrow \text{Selling price} = 120 \times \frac{(100-25)}{100}$$

$$= 1.2 \times 75 = \text{Rs. } 90$$

Thus, Irfaan's consumer surplus = $200 - 90 = \text{Rs. } 110$

\Rightarrow Ans - (D)

Latest Job Updates on Telegram - Join here

Question 36

Which among the following does not count in the development expenditure of government?

- A Expenditure on economic services
- B Expenditure on social services
- C Grant to states
- D Defence expenditure

Answer: D

Question 37

Which of the following is responsible for Vermicomposting?

- A Fungus
- B Worms
- C Bacteria
- D Birds

Answer: B

Question 38

Turquoise is an ore/mineral of

- A Copper
- B Manganese
- C Mercury
- D Tin

Answer: A

Join SSC Daily Quiz Telegram Group

Question 39

Shabana Azmi is not one of the following

- A Movie Actress
- B Activist
- C Feminist
- D Folk Dancer

Answer: D

Question 40

How many languages are officially recognized in India?

- A 17
- B 19
- C 22
- D 10

Answer: C

Question 41

Which planet is known as red planet?

- A Mercury
- B Pluto
- C Mars
- D Venus

Answer: C

25 SSC CHSL Mocks for just Rs. 149

Question 42

Who was Babur's Son?

- A Humayun
- B Shah Jahan
- C Akbar
- D Bahadur Shah

Answer: A

Question 43

Who was Prithviraj Chauhan's father?

- A Jeet Chauhan
- B Hayat Chauhan
- C Someshwar Chauhan
- D Trilok Chauhan

Answer: A

Question 44

.....is the 2016 Oscar Winner for Best Supporting Actor.

- A Mark Rylance
- B Christian Bale

- C Tom Hardy
- D Mark Ruffalo

Answer: D

SSC CHSL Free Mock Test

Question 45

Formula for distance is

- A speed x time
- B time / speed
- C speed x acceleration
- D velocity / speed

Answer: A

Question 46

What is the fundamental unit of amount of a substance?

- A Mole
- B Candela
- C Kelvin
- D Meter

Answer: A

Question 47

Republic means ultimate power is held by

- A the monarch
- B the people
- C the winning party
- D Ministers

Answer: B

SSC CHSL Previous Papers (DOWNLOAD PDF)

Question 48

How many Rajya Sabha members, the President of India can nominate?

- A 6
- B 10
- C 12

D 15

Answer: C

Question 49

Who is the first Indian woman Olympic medal Winner?

- A Saina Nehwal
- B Sania Mirza
- C Dipa Karmakar
- D Karnam Malleswari

Answer: D

Question 50

Who wrote the book "Ignited Minds"?

- A Vikram Seth
- B APJ Abdul Kalam
- C Arundhati Roy
- D Manmohan Singh

Answer: B

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. Practice makes a man perfect

- A Perfection demands patience
- B Any problem can be solved if you are willing to try many times
- C Regular activity is the way to become proficient in it
- D It takes a long time to form a good habit

Answer: C

SSC CGL Free Mock Test (Latest Pattern)

Question 52

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'.

A rate of growing is different(A)/for different sectors, but the service sector(B)/ always grows faster than agriculture.(C)/No error(D)

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

Answer: A

Question 53

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'.

The food basket contained(A)/ a dark chocolate, an eclair and a pastry(B)/neatly wrapped in foil paper.(C)/No error

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

Answer: B

Question 54

Rearrange the parts of the sentence in correct order.

The arbitration
Pdated China's interests
Qin multiple ways
Raward has, nevertheless,

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

Answer: A

SSC CHSL Important Questions and Answers (Download PDF)

Question 55

Improve the bracketed part of the sentence. Any bad habit must be nipped (on) the bud.

- A on
- B in
- C off
- D no improvement

Answer: B

Question 56

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.

At this critical juncture what the company needs is amarketing strategy.

- A creditable
- B adventurous
- C incredible
- D credible

Answer: D

Question 57

Select the antonym of mishmash

- A potpourri
- B medley
- C organized
- D haphazard

Answer: C

SSC CHSL Study Material

Question 58

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.

He is not a native speaker yet he has a goodover German.

- A authority
- B hold
- C command
- D expertise

Answer: C

Question 59

In the following question, out of the four alternatives, select the alternative which is the best substitute of the phrase. match or surpass a person by imitation.

- A parallel
- B emulate
- C ditto
- D impression

Answer: B

Question 60

Select the word with the correct spelling.

- A rootless
- B xpanded
- C fulstop
- D griling

Answer: A

SSC CHSL Free App

Question 61

In the following question, out of the four alternatives, select the alternative which is the best substitute of the phrase. lack of skill, ability, or competence

- A ineptitude
- B dexterity
- C proficiency
- D prowess

Answer: A

Question 62

In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the idiom/phrase. Pull the plug

- A Make a firm refusal
- B Save a situation by acting in the nick of time
- C To waste away somebody's effort
- D Prevent something from continuing

Answer: D

Question 63

Improve the bracketed part of the sentence. The patient died (of a wound and not of) cancer.

- A from a wound and not of
- B of a wound and not from
- C from a wound and not from
- D no improvement

Answer: A

Daily Free SSC Practice Set

Question 64

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.

I said, "My grandfather snored throughout the night."

- A I said my grandfather had snored throughout the night.
- B I said that my grandfather snored throughout the night.
- C I said that my grandfather had snored throughout the night.
- D I said that my grandfather had been snoring throughout the night.

Answer: C

Question 65

Select the antonym of generosity

- A altruism
- B general
- C largesse
- D malevolence

Answer: D

Question 66

Select the synonym of rip

- A cease
- B terminate
- C gash
- D sew

Answer: C

Free SSC Study Material (18,000 Solved Questions)

Question 67

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.

Sunny was driving the car so fast that it slipped at the turn.

- A Sunny slipped at the turn as he was driving the car so fast.
- B So fast was Sunny driving the car that it slipped at the turn.
- C The car was being driven by Sunny so fast that it slipped at the turn.

D The car slipped at the turn as Sunny was driving it so fast.

Answer: C

Question 68

Select the word with the correct spelling.

A terains

B priestly

C fereted

D ablasion

Answer: B

Question 69

Select the synonym of stash

A dearth

B deficit

C lack

D cache

Answer: D

1500+ Very Important Free SSC Solved Questions

Question 70

Rearrange the parts of the sentence in correct order.

Senior officials

Pto negotiate a solution

Qreadiness

Rhave signalled China's

A QRP

B RQP

C PRQ

D PQR

Answer: B

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.

A saint or a satyagrahi is often put on a(1)....., freezing her acts of goodness in time. Goodness acquires an act of fixed quality..... (2).....in amber. Rather than(3).....a living creature, a saint or an icon becomes a hoarding, a permanent spectacle or a redundant quotation. Saintliness or heroism becomes a bundle of pictures in a calendar, a statue(4).....inflexibly. Goodness becomes a stencil fixed(5).....time.

Question 71

(1)

A pedestal

B platform

C Flint

D podium

Answer: A

Question 72

(2)

A ingrained

B impacted

C embedded

D deepseated

Answer: C

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

Question 73

(3)

A being

B having been

C had been

D becoming

Answer: D

Question 74

(4)

A standing

B stands

C stood

D always stands

Answer: A

Question 75

(5)

- A of
- B in
- C with
- D about

Answer: B

Latest Job Updates on Telegram - Join here

Mathematics

Instructions

For the following questions answer them individually

Question 76

If $xy = 56$ and $x^2 + y^2 = 113$, then what will be the value of $(x + y)$?

- A 29
- B 21
- C 36
- D 15

Answer: D

Explanation:

Given : $(x^2 + y^2) = 113$ and $xy = 56$

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

$$\Rightarrow (x + y)^2 = 113 + (2 \times 56)$$

$$\Rightarrow (x + y)^2 = 113 + 112 = 225$$

$$\Rightarrow (x + y) = \sqrt{225} = 15$$

\Rightarrow Ans - (D)

Join SSC Daily Quiz Telegram Group

Question 77

If $3A = 7B = 13C$, then $A : B : C$ is equal to

- A 21:39:91
- B 39:91:21
- C 13:7:3
- D 91:39:21

Answer: D

Explanation:

Let $3A = 7B = 13C = k$

$$\Rightarrow A = \frac{k}{3}, B = \frac{k}{7}, C = \frac{k}{13}$$

$$\Rightarrow \text{Ratio of } A : B : C = \frac{k}{3} : \frac{k}{7} : \frac{k}{13}$$

$$= \frac{1}{3} : \frac{1}{7} : \frac{1}{13}$$

L.C.M. of 3, 7 and 13 = 273, thus multiplying by 273, we get :

$$= \frac{273}{3} : \frac{273}{7} : \frac{273}{13}$$

$$= 91 : 39 : 21$$

\Rightarrow Ans - (D)

Question 78

Which of the following equations has 3 as a root?

A $x^2 - 7x + 12 = 0$

B $x^2 - 5x + 12 = 0$

C $x^2 + 3x + 12 = 0$

D $x^2 + 3x - 12 = 0$

Answer: A

Explanation:

(A) : $x^2 - 7x + 12 = 0$

$$\Rightarrow x^2 - 4x - 3x + 12 = 0$$

$$\Rightarrow x(x - 4) - 3(x - 4) = 0$$

$$\Rightarrow (x - 4)(x - 3) = 0$$

$$\Rightarrow x = 3, 4$$

\Rightarrow Ans - (A)

Question 79

Amar is 2 times as good a workman as Badal and therefore is able to finish a job in 15 days less than Badal. In how many days can they together complete the job?

A 30 days

B 40 days

C 10 days

D 20 days

Answer: C

Explanation:

Ratio of times taken by Amar and Badal = 1 : 2

The time difference is (2 - 1) 1 day while Badal take 2 days and Amar takes 1 day.

If difference of time is 1 days, Badal takes 2 days.

If difference of time is 15 days, Badal takes = $\frac{2}{1} \times 15 = 30$ days

So, Amar takes 30 days

Amar's 1 day's work = $\frac{1}{15}$

$$\text{Badal's 1 day's work} = \frac{1}{30}$$

$$(\text{Amar} + \text{Badal})\text{'s 1 day's work together} = \frac{1}{30} + \frac{1}{15} = \frac{3}{30} = \frac{1}{10}$$

\therefore Amar and Badal together can do the work in = 10 days

\Rightarrow Ans - (C)

25 SSC CHSL Mocks for just Rs. 149

Question 80

What is the equation of the line which intercepts x-axis and y-axis at $\frac{3}{4}$ and $\frac{2}{3}$ respectively?

A $8x - 9y = 6$

B $9x - 8y = 12$

C $8x + 9y = 6$

D $9x + 8y = 12$

Answer: C

Explanation:

A line with x-intercept $\frac{3}{4}$ will intercept x-axis at $(\frac{3}{4}, 0)$

A line with y-intercept $\frac{2}{3}$ will intercept y-axis at $(0, \frac{2}{3})$

$$\Rightarrow \text{Slope, } m = \frac{2}{3} \div \frac{-3}{4} = \frac{-8}{9}$$

Equation of line passing through points (x_1, y_1) and slope $m = (y - y_1) = m(x - x_1)$

$$\Rightarrow \text{Equation of line} = (y - 0) = \frac{-8}{9}(x - \frac{3}{4})$$

$$\Rightarrow 9y = -8x + 6$$

$$\Rightarrow 8x + 9y = 6$$

\Rightarrow Ans - (C)

Question 81

What is the value of $\tan 3A$?

A $(3\tan A - \tan^3 A)/(1 - 3\tan^2 A)$

B $(3\tan A + \tan^3 A)/(1 + 3\tan^2 A)$

C $(3\tan A - \tan^3 A)/(1 + 3\tan^2 A)$

D $(3\tan A + \tan^3 A)/(1 - 3\tan^2 A)$

Answer: A

Explanation:

Expression : $\tan(3A)$

$$= \frac{\sin(3A)}{\cos(3A)} = \frac{\sin(2A+A)}{\cos(2A+A)}$$

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

Using, $\sin(2x) = 2\sin x \cos x$ and $\cos(2x) = \cos^2 x - \sin^2 x$

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

Taking $\sin A$ common from numerator and $\cos A$ from denominator,

$$\begin{aligned} &= \frac{\sin A (2\cos^2 A + \cos^2 A - \sin^2 A)}{\cos A (\cos^2 A - \sin^2 A - 2\sin^2 A)} \\ &= \frac{3\cos^2 A - \sin^2 A}{\cos^2 A - 3\sin^2 A} \tan A \end{aligned}$$

Dividing both numerator and denominator by $\cos^2 A$, we get :

$$\begin{aligned} &= \frac{3 - \tan^2 A}{1 - 3\tan^2 A} \tan A \\ &= \frac{3\tan A - \tan^3 A}{1 - 3\tan^2 A} \end{aligned}$$

=> Ans - (A)

Question 82

An angle is greater than its complementary by 20° . What will be the measure of the angle?

- A 55°
- B 35°
- C 100°
- D 80°

Answer: A

Explanation:

Let the angle = θ

Its complementary angle = $(\theta + 20^\circ)$

Sum of an angle and its complementary angle = 90°

$$\Rightarrow \theta + (\theta + 20^\circ) = 90^\circ$$

$$\Rightarrow 2\theta = 90^\circ - 20^\circ = 70^\circ$$

$$\Rightarrow \theta = \frac{70}{2} = 35^\circ$$

\therefore Measure of the angle = $35 + 20 = 55^\circ$

=> Ans - (A)

SSC CHSL Free Mock Test

Question 83

The radius of a hemisphere is 21 cm, what is its volume? (Take $\pi = 22/7$)

- A 38808 cubic cms
- B 9702 cubic cms
- C 19404 cubic cms
- D 29106 cubic cms

Answer: C

Explanation:

Radius of hemisphere, $r = 21$ cm

$$\text{Volume of hemisphere} = \frac{2}{3} \pi r^3$$

$$= \frac{2}{3} \times \frac{22}{7} \times (21)^3$$

$$= 44 \times 21 \times 21$$

$$= 19404 \text{ cm}^3$$

=> Ans - (C)

Question 84

If $\cot^2 A - \cos^2 A = x$, then value of x is

A $\tan^2 A \sec^2 A$

B $\cot A \cos A$

C $\cot^2 A \cos^2 A$

D $\tan A \sec A$

Answer: C

Explanation:

Expression : $\cot^2 A - \cos^2 A = x$

$$= \frac{\cos^2 A}{\sin^2 A} - \cos^2 A$$

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

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

$$= \cos^2 A \times \frac{\cos^2 A}{\sin^2 A}$$

$$= \cot^2 A \cos^2 A$$

=> Ans - (C)

Question 85

What are the coordinates of the centroid of a triangle, whose vertices are A(-2,5), B(4,4) and C(7,-3)?

A (4,3)

B (1,0)

C (3,3)

D (3,2)

Answer: D

Explanation:

Coordinates of centroid of triangle with vertices (x_1, y_1) , (x_2, y_2) and (x_3, y_3) is $\left(\frac{x_1 + x_2 + x_3}{3}, \frac{y_1 + y_2 + y_3}{3} \right)$

Let coordinates of centroid G = (x, y)

Vertex A(-2,5) and Vertex B(4,4) and C = (7,-3)

$$\Rightarrow x = \frac{-2+4+7}{3}$$

$$\Rightarrow x = \frac{9}{3} = 3$$

$$\text{Similarly, } \Rightarrow y = \frac{5+4-3}{3}$$

$$\Rightarrow y = \frac{6}{3} = 2$$

\therefore Coordinates of centroid G = (3,2)

=> Ans - (D)

SSC CHSL Previous Papers (DOWNLOAD PDF)

Question 86

In a triangle the length of the side opposite the right angle is 6 cm, what is the length of the side opposite to the angle which measures 30° ?

- A 3 cm
- B $3\sqrt{3}$ cm
- C $\frac{3}{2}$ cm
- D $\left(\frac{3}{2}\right)\sqrt{3}$

Answer: A

Explanation:

In the given triangle, two angles are 30° and 90° , => Third angle = 60°

In a 30-60-90 triangle, the hypotenuse is always twice as long as the side opposite the 30° angle and the side opposite the 60° angle is $\sqrt{3}$ times as long as the side opposite the 30° angle.

The ratio of sides opposite 30° , 60° and 90° angles = $1 : \sqrt{3} : 2$

Length of the side opposite the 90° angle = 6 cm

=> Length of side opposite the 30° angle = $\frac{6}{2} = 3$ cm

=> Ans - (A)

Question 87

If $2x + 5 > 2 + 3x$ and $2x - 3 \leq 4x - 5$, then x can take which of the following values?

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

Answer: B

Explanation:

Expression 1 : $2x + 5 > 2 + 3x$

=> $3x - 2x < 5 - 2$

=> $x < 3$ -----(i)

Expression 2 : $2x - 3 \leq 4x - 5$

=> $4x - 2x \geq -3 + 5$

=> $2x \geq 2$

=> $x \geq 1$ -----(ii)

Combining inequalities (i) and (ii), we get : $1 \leq x < 3$

The only value that x can take among the options = 2

=> Ans - (B)

Question 88

If the radius of a circle is increased by 14% its area increases by

- A 28 percent
- B 29.96 percent
- C 14 percent
- D 14.98 percent

Answer: B

Explanation:

Let radius = 10 cm

$$\Rightarrow \text{Area of circle} = \pi(10)^2 = 100\pi \text{ sq. cm}$$

$$\text{If radius is increased by 14\%, } \Rightarrow \text{New radius} = 10 + \frac{14}{100} \times 10 = 11.4 \text{ cm}$$

$$\text{New area} = \pi(11.4)^2 = 129.96\pi \text{ sq. cm}$$

$$\Rightarrow \% \text{ increase in area} = \frac{129.96 - 100}{100} \times 100$$

$$= 29.96\%$$

\Rightarrow Ans - (B)

SSC CGL Previous Papers (DOWNLOAD PDF)

Question 89

What is the value of $\tan 150^\circ$?

- A $-\sqrt{3}$
- B $\frac{5}{\sqrt{3}}$
- C $\frac{1}{\sqrt{6}}$
- D $\frac{-1}{\sqrt{3}}$

Answer: D

Explanation:

Expression : $\tan 150^\circ$

$$= \tan(180 - 30)^\circ$$

$$= -\tan(30)^\circ$$

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

\Rightarrow Ans - (D)

Question 90

When 0.151515.....is converted into a fraction, then the result is

- A 5/33
- B 17/33

C 9/11

D 7/33

Answer: A

Explanation:

Let $x = 0.151515\dots$ -----(i)

Multiplying both sides by 100

$\Rightarrow 100x = 15.151515\dots$ -----(ii)

Subtracting equation (i) from (ii)

$\Rightarrow 100x - x = (15.151515\dots) - (0.151515\dots)$

$\Rightarrow 99x = 15$

$\Rightarrow x = \frac{15}{99} = \frac{5}{33}$

So, 0.151515... written in the form p/q is 5/33

\Rightarrow Ans - (A)

Question 91

Among three numbers, the first is twice the second and thrice the third. If the average of three numbers is 429, then what is the difference between the first and the third number?

A 412

B 468

C 517

D 427

Answer: B

Explanation:

Let the first number be $6x$

\Rightarrow Second number = $3x$ and third number = $2x$

\Rightarrow Average = $\frac{6x+3x+2x}{3} = 429$

$\Rightarrow 11x = 429 \times 3 = 1287$

$\Rightarrow x = \frac{1287}{11} = 117$

\therefore Difference between first and third number = $6x - 2x = 4x$

$= 4 \times 117 = 468$

\Rightarrow Ans - (B)

SSC CGL Free Mock Test (Latest Pattern)

Question 92

If $(8x - 4) = (3x + 6)$, then the numerical value of $(x + 1)^3$ is

A 3

B 9

C 27

D 81

Answer: C

Explanation:

Given : $(8x - 4) = (3x + 6)$

$$\Rightarrow 8x - 3x = 6 + 4$$

$$\Rightarrow 5x = 10$$

$$\Rightarrow x = \frac{10}{5} = 2$$

To find : $(x + 1)^3$

$$= (2 + 1)^3 = 3^3 = 27$$

\Rightarrow Ans - (C)

Question 93

If the amount received at the end of 2nd and 3rd year at compound interest on a certain Principal is Rs 30250, and Rs 33275 respectively, what is the rate of interest?

A 10 percent

B 5 percent

C 20 percent

D 16 percent

Answer: A

Explanation:

Compound interest at the end of 2nd year = Rs. 30,250

Compound interest at the end of 3rd year = Rs. 33,275

$$\Rightarrow \text{Difference} = 33275 - 30250 = \text{Rs. } 3025$$

This is the interest obtained on the amount of 2nd year.

$$\therefore \text{Rate of interest, } r = \frac{3025}{30250} \times 100 = 10\%$$

\Rightarrow Ans - (A)

Question 94

When a discount of 20% is given on an African safari ticket, the profit is 43%. If the discount is 28%, then the profit is

A 71 percent

B 113.3 percent

C 13.6 percent

D 28.7 percent

Answer: D

Explanation:

Let marked price = Rs. $100x$

$$\text{After 20\% discount, selling price} = \frac{100-20}{100} \times 100x = \text{Rs. } 80x$$

Let Cost price = Rs. y

$$\Rightarrow \text{Profit \%} = \frac{80x-y}{y} \times 100 = 43$$

$$\Rightarrow \frac{80x-y}{y} = \frac{43}{100}$$

$$\Rightarrow 8000x - 100y = 43y$$

$$\Rightarrow y = \frac{8000x}{143} \approx Rs.56x$$

$$\text{If, discount} = 28\%, \Rightarrow \text{Selling price} = \frac{100-28}{100} \times 100x = Rs.72x$$

$$\therefore \text{Profit \%} = \frac{72x-56x}{56x} \times 100 \approx 28.7\%$$

Ans - (D)

SSC CHSL Important Questions and Answers (Download PDF)

Question 95

A missile travels at 1440 km/h. How many metres does it travel in one second?

- A 374 metres
- B 385 metres
- C 394 metres
- D 400 metres

Answer: D

Explanation:

Speed of missile = 1440 km/hr

$$\Rightarrow \text{Speed in m/s} = 1440 \times \frac{5}{18}$$

$$= 80 \times 5 = 40 \text{ m/s}$$

\(\therefore\) In 1 second, it travels 40 metres

\(\Rightarrow\) Ans - (D)

Question 96

At 13% discount the selling price of a oven is Rs 18000, what is the selling price if the discount is 27.5%?

- A Rs 10875
- B Rs 12288.75
- C Rs 15000
- D Rs 16638.75

Answer: C

Explanation:

Let Marked Price of the oven = Rs.100x

$$\text{If discount is 13\%, Selling price} = \frac{100-13}{100} \times 100x = 87x$$

According to ques, \(\Rightarrow\) 87x = 18000

$$\Rightarrow x = \frac{18000}{87} = 206.9$$

$$\text{If discount is 27.5\%, selling price} = \frac{100-27.5}{100} \times 100x = 72.5x$$

$$= 72.5 \times 206.9 = 15000.25 \approx Rs.15,000$$

\(\Rightarrow\) Ans - (C)

Question 97

Refer the below data table and answer the following Question.

	Number of employees	Annual salary (in lakhs)	Bonus as percent of annual salary
Manager	3	54	50%
Executive	5	20	20%
Trainee	3	2	20%

What is the average bonus (in rupees)?

- A 10220001
- B 253333
- C 314000
- D 929091

Answer: D

Explanation:

Total bonus of managers (in lakh) = $3 \times 54 \times \frac{50}{100} = 81$ lakhs

Total bonus of executive (in lakh) = $5 \times 20 \times \frac{20}{100} = 20$ lakhs

Total bonus of trainee (in lakh) = $3 \times 2 \times \frac{20}{100} = 1.2$ lakhs

=> Average bonus in rupees = $\frac{(81+20+1.2)}{(3+5+3)}$

= $\frac{102.2}{11} = 9.2909$ lakhs = 929091

=> Ans - (D)

SSC CHSL Study Material

Question 98

Refer the below data table and answer the following Question.

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

For which of the following pairs of years the total exports from he three Companies together are equal?

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

Answer: A

Explanation:

Total exports from the three companies together in :

2011 = 4000 + 2000 + 4000 = 10000

2012 = 3000 + 2000 + 2000 = 7000

$$2013 = 1000 + 1000 + 4000 = 6000$$

$$2014 = 5000 + 2000 + 1000 = 8000$$

$$2015 = 2000 + 4000 + 4000 = 10000$$

Clearly, total exports in 2011 and 2015 are equal to 10000

=> Ans - (A)

Question 99

Refer the below data table and answer the following Question.

Year	Profit or (-Loss) in Rs crore
2011	15
2012	-10
2013	10
2014	20
2015	-5

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

- A Profit of Rs 30 crores
- B Profit of Rs 40 crores
- C Loss of Rs 30 crores
- D Loss of Rs 40 crores

Answer: A

Explanation:

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

$$= 15 - 10 + 10 + 20 - 5$$

$$= 45 - 15 = 30$$

Since, it is positive, thus profit of Rs. 30 crore

=> Ans - (A)

Question 100

Refer the below data table and answer the following Question.

India's Exports in 2015	Value in Million US\$
Jewellery	525
Software	875
Cotton	650
Steel	975
Electronics	625

The pie chart shows India's exports in 2015. Steel was what percent of total exports?

- A 26.71 percent
- B 29.21 percent
- C 31.71 percent
- D 24.21 percent

Answer: A

Explanation:

Value in millions of Steel = 975

Total exports = 525 + 875 + 650 + 975 + 625 = 3650

=> % of Jewelry in total exports = $\frac{975}{3650} \times 100$

= $\frac{975 \times 2}{73} \approx 26.71\%$

=> Ans - (A)

SSC CHSL Free App

25 SSC CHSL Mocks for just Rs. 149

SSC CHSL Free Mock Test

SSC CHSL Previous Papers (DOWNLOAD PDF)

SSC CGL Previous Papers (DOWNLOAD PDF)

SSC CGL Free Mock Test (Latest Pattern)

SSC CHSL Important Questions and Answers (Download PDF)

SSC CHSL Study Material

SSC CHSL Free App

Daily Free SSC Practice Set

Free SSC Study Material (18,000 Solved Questions)

1500+ Very Important Free SSC Solved Questions

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

Latest Job Updates on Telegram - Join here

Join SSC Daily Quiz Telegram Group