



## SSC CHSL 8 Jan 2017 Morning 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](mailto:support@cracku.in)

# Reasoning

## Instructions

For the following questions answer them individually

### Question 1

Select the related word/letters/number from the given alternatives. Ganga : India :: Nile : ?

- A Pakistan
- B Egypt
- C America
- D United Kingdom

Answer: B

### Explanation:

Expression = Ganga : India :: Nile : ?

The river Ganga flows through India, similarly among the given options, Nile flows through *Egypt*.

=> Ans - (B)

**25 SSC CHSL Mocks for just Rs. 149**

### Question 2

Select the related word/letters/number from the given alternatives. RM : XG :: ER : ?

- A PK
- B LK
- C KL
- D PL

Answer: C

### Explanation:

Expression = RM : XG :: ER : ?

The pattern followed is :

R	M
(+6)	(-6)
X	G

Similarly, ER : KL

E	R
(+6)	(-6)
K	L

=> Ans - (C)

### Question 3

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

ET : VG :: NO : ?

- A IM

- B MI
- C ML
- D LM

**Answer: C**

**Explanation:**

Expression = ET : VG :: NO : ?

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, NO : ML

=> Ans - (C)

**Question 4**

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

97 : 63 :: 67 : ?

- A 38
- B 56
- C 42
- D 45

**Answer: C**

**Explanation:**

Expression = 97 : 63 :: 67 : ?

The second number is equal to the product of digits of first number.

Eg :-  $9 \times 7 = 63$

Similarly,  $6 \times 7 = 42$

=> Ans - (C)

**SSC CHSL Free Mock Test**

**Question 5**

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

- A Daman and Diu
- B Puducherry
- C Delhi
- D Chennai

**Answer: D**

**Explanation:**

Daman and Diu, Puducherry and Delhi are Union Territories while Chennai is a capital city, hence Chennai is the odd one out.

=> Ans - (D)

**Question 6**

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

- A POR
- B MEF
- C TUD
- D STD

**Answer:** D

**Explanation:**

Except STD, all terms contain a vowel, hence STD is the odd one out.

=> Ans - (D)

**Question 7**

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

- A 636
- B 749
- C 864
- D 989

**Answer:** D

**Explanation:**

The last two digits is the square of the first digit.

$$6^2 = 36, 7^2 = 49, 8^2 = 64$$

But  $9^2 \neq 89$

=> Ans - (D)

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

**Question 8**

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

- A 1728
- B 2197
- C 3266
- D 2744

**Answer:** C

**Explanation:**

Except 3266, other numbers are perfect cubes.

$$1728 = (12)^3, 2197 = (13)^3 \text{ and } 2744 = (14)^3$$

=> Ans - (C)

**Question 9**

A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series. Jupiter, ?, Uranus, Neptune

- A Saturn
- B Earth
- C Pluto
- D Mercury

**Answer:** A

**Explanation:**

Planets of the universe in order are given.

= Jupiter -> Saturn -> Uranus -> Neptune

=> 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. TP, UQ, WS, ZV, ?

- A EY
- B DZ
- C CY
- D CZ

**Answer:** B

**Explanation:**

Expression : TP, UQ, WS, ZV, ?

The pattern followed in each letter of the terms is :

1st letter : T (+1 letter) = U (+2 letters) = W (+3 letters) = Z (+4 letters) = D

2nd letter : P (+1 letter) = Q (+2 letters) = S (+3 letters) = V (+4 letters) = Z

Thus, missing term = **DZ**

=> Ans - (B)

## 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. RP, DM, SQ, CL, TR, ?

- A AJ
- B US
- C DM
- D BK

**Answer:** D

**Explanation:**

Expression : RP, DM, SQ, CL, TR, ?

The pattern given in each letter of the alternate terms is :

Odd terms : 1st letter : R (+1 letter) = S (+1 letter) = T

2nd letter : P (+1 letter) = Q (+1 letter) = R

Even Terms : 1st letter : D (-1 letter) = C (-1 letter) = B

2nd letter : M (-1 letter) = L (-1 letter) = K

Thus, missing term = **BK**

=> Ans - (D)

**Question 12**

A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series.  
-1, 1, 4, 9, 16, ?

A 24

B 27

C 26

D 36

Answer: B

**Explanation:**

Consecutive prime numbers are added.

$$-1 + 2 = 1$$

$$1 + 3 = 4$$

$$4 + 5 = 9$$

$$9 + 7 = 16$$

$$16 + 11 = 27$$

=> 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) Some notes are coins.

(II) No coin is a card.

**Conclusion:**

(I) All cards can be notes.

(II) Some notes are neither coins nor cards.

A Conclusion I follows

B Conclusion II follows

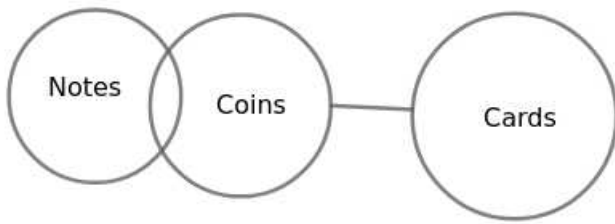
C Neither I nor II follows

D Both I and II follows

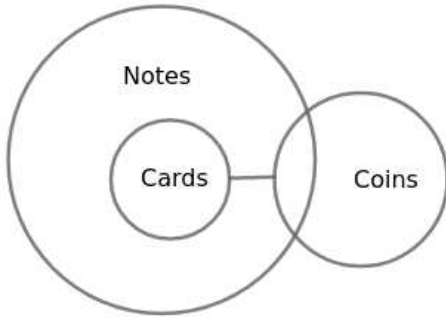
Answer: A

**Explanation:**

The basic diagram from the given statements is

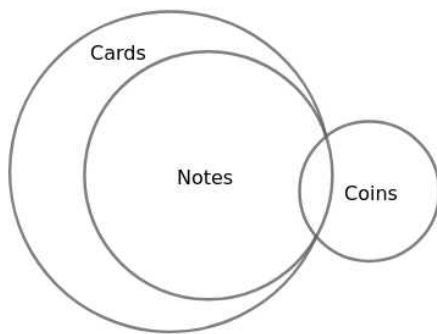


(I) All cards can be notes.



Hence Conclusion I follows

(II) Some notes are neither coins nor cards.



All notes are either Cards or Coins in this possibility. Hence Conclusion II is false.

Hence, the correct answer is Option A

## SSC CGL Free Mock Test (Latest Pattern)

**Question 14**

If 27th December 2009 was a Thursday, then what day of the week was it on 1st March 2010?

- A Thursday
- B Friday
- C Sunday
- D Monday

**Answer: B**

**Explanation:**

According to the question, 27th December, 2009 is Thursday

Number of days left in December =  $31 - 27 = 4$

Similarly, odd days from 27th December, 2009 till 1st March, 2010 =  $(4 + 31 + 28 + 1) \% 7$   
 $= 4 + 3 + 0 + 1 = 8$

Now, dividing 8 by 7, remainder = 1

Thus, day on 1st March, 2009 = Thursday (+1) = Friday

=> Ans - (B)

**Question 15**

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

- i. Obstacle
- ii. Obscure
- iii. Obsession
- iv. Obstruct

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

Answer: C

**Explanation:**

As per the order of dictionary :

= Obscure -> Obsession -> Obstacle -> Obstruct

≡ ii, iii, i, iv

=> Ans - (C)

**Question 16**

In a certain code language, "REMINDER" is written as "SFNJMCDQ". How is "STANDARD" written in that code language?

- A TUBOEQZE
- B CZQETUBO
- C TUBOCZQC
- D TUBOEBSE

Answer: C

**Explanation:**

"REMINDER" is written as "SFNJMCDQ"

The pattern followed is :

R	E	M	I	N	D	E	R
(+1)	(+1)	(+1)	(+1)	(-1)	(-1)	(-1)	(-1)
S	F	N	J	M	C	D	Q

Similarly, for STANDARD :

S	T	A	N	D	A	R	D
(+1)	(+1)	(+1)	(+1)	(-1)	(-1)	(-1)	(-1)
T	U	B	O	C	Z	Q	C

=> Ans - (C)



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

### Question 17

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

19	5	?
D	E	P
W	J	Z

- A 17
- B 18
- C 10
- D 9

Answer: C

#### Explanation:

The pattern followed is that the alphabets are numbered alphabetically, A=1, B=2, C=3 and so on and then the first number in each column is obtained by :

$$D=4 \text{ and } W=23, \Rightarrow 23 - 4 = 19$$

$$E=5 \text{ and } J=10, \Rightarrow 10 - 5 = 5$$

$$\text{Similarly, } P=16 \text{ and } Z=26, \Rightarrow 26 - 16 = 10$$

$\Rightarrow$  Ans - (C)

### Question 18

If "A" denotes "added to", "B" denotes "divided by", "C" denotes "multiplied by" and "D" denotes "subtracted from", then  $116 \text{ B } 29 \text{ C } 6 \text{ A } 24 \text{ D } 45 = ?$

- A 4
- B 3
- C 5
- D 6

Answer: B

#### Explanation:

Expression :  $116 \text{ B } 29 \text{ C } 6 \text{ A } 24 \text{ D } 45 = ?$

$$\equiv 116 \div 29 \times 6 + 24 - 45$$

$$= (4 \times 6) - 21$$

$$= 24 - 21 = 3$$

$\Rightarrow$  Ans - (B)

### Question 19

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

\_r\_r\_t\_r\_r\_t

- A tpprpp

- B tpprp
- C tpptpp
- D tpprp

Answer: C

**Explanation:**

The pattern followed is that in groups of 6, the term 'trprpt' is repeated.

= trprpt trprpt

=> Ans - (C)

## SSC CHSL Study Material

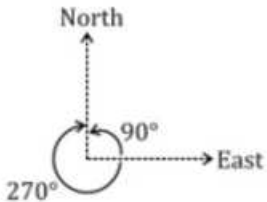
**Question 20**

A man is facing towards the east. He turns 270 degrees clockwise and then takes a right turn. Finally, he turns 90 degrees anticlockwise. Which direction is he facing now?

- A West
- B South
- C North
- D East

Answer: C

**Explanation:**



A man is facing towards the east. He turns 270 degrees clockwise, i.e. face north and then takes a right turn towards east. Finally, he turns 90 degrees anticlockwise.

Thus, he faces north at the end.

=> Ans - (C)

**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, 'F' can be represented by 32, 42 etc., and 'M' can be represented by 88, 68 etc. Similarly, you have to identify the set for the word 'DOWN'

**Matrix - I**

	0	1	2	3	4
0	I	N	U	H	E
1	U	I	N	L	L
2	W	G	I	N	E
3	W	W	F	I	U
4	W	W	F	N	E

**Matrix - II**

	5	6	7	8	9
5	I	D	D	R	O
6	O	I	I	M	D
7	O	D	G	I	O
8	D	M	T	M	I
9	D	D	D	M	D

- A 76, 59, 21, 33

B 95, 79, 40, 43

C 99, 57, 30, 42

D 69, 65, 20, 85

**Answer: B**

**Explanation:**

(A) : 76, 59, 21, 33 = DOGI

(B) : 95, 79, 40, 43 = **DOWN**

(C) : 99, 57, 30, 42 = DDWF

(D) : 69, 65, 20, 85 = DOWD

=> Ans - (B)

**Question 22**

Nishi's grandfather is the brother of Om's father. Hemant is the son of Om. How is Hemant related to Nishi?

A Brother

B Son

C Cousin

D Nephew

**Answer: C**

**Explanation:**

Nishi's grandfather is the brother of Om's father.

Hemant is the son of Om.

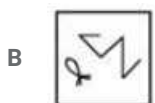
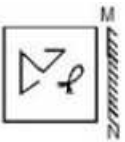
=> Nishi is the cousin of Hemant.

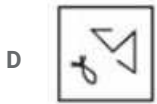
=> Ans - (C)

**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)

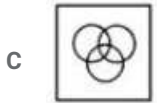
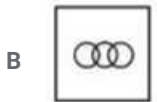
∴ The required mirror image of the given figure is shown below



Hence, the correct answer is Option A

**Question 24**

Identify the diagram that best represents the relationship among the given classes. Hindu, Muslim, Indian

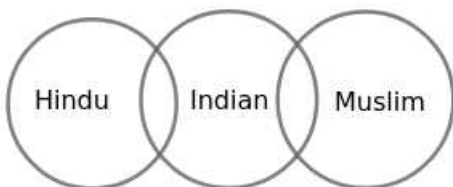


Answer: B

**Explanation:**

Muslim can be Indian and Hindu can be Indian but Muslim and Hindu are different religions.

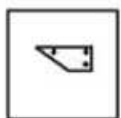
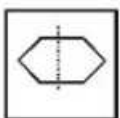
∴ The diagram that best represents the relationship among the given classes is

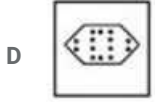
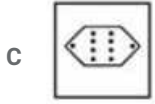
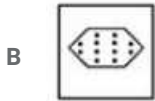
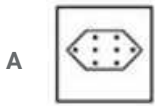


Hence, the correct answer is Option B

**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: B

**Explanation:**

When the figure is unfolded first to the top, three dots will appear similarly on the top part.

When the figure is unfolded again to the right, three dots each will appear similarly on the top right and bottom right 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**

Web pages are created by using which of the following?

A HTTP

B SMTP

C HTML

D SGML

Answer: C

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

**Question 27**

Seismometer was invented by

A Alexander Parkes

B Luigi Palmieri

- C Alexey Pajitnov
- D Ransom Eli Olds

**Answer: B**

**Question 28**

**Deficiency of which of the following causes non-clotting of blood?**

- A Vitamin C
- B Vitamin K
- C Vitamin E
- D Vitamin B12

**Answer: B**

**Question 29**

**The process of producing energy in plants is known as**

- A Absorption
- B Reduction
- C Photosynthesis
- D Transpiration

**Answer: C**

**1500+ Very Important Free SSC Solved Questions**

**Question 30**

**Which Virus causes Chicken Pox?**

- A Rubella Virus
- B Herpes Zoster Virus
- C Rabies
- D Variola Virus

**Answer: B**

**Question 31**

**Which among the following is an endothermic reaction?**

- A Respiration
- B Combustion
- C Sweating
- D Burning of natural gas

Answer: C

Question 32

Name the catalyst used in the conversion of milk into curd.

- A Pepsin
- B Invertase
- C Lactase
- D Diastase

Answer: C

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

Question 33

Bibi Ka Maqbara was built by

- A Humayun
- B Azam Shah
- C Babur
- D Aurangzeb

Answer: B

Question 34

In which state of India 'Bodo language' is primarily spoken ?

- A Assam
- B Karnataka
- C Rajasthan
- D Andhra Pradesh

Answer: A

Question 35

A company faces a -2.5 price elasticity of demand for its product. It is presently selling 10,000 units/month. If it wants to increase quantity sold by 6%, it must lower its price by

- A 3.50%
- B 15%
- C 2.50%
- D 2.40%

Answer: D

## Latest Job Updates on Telegram - Join here

### Question 36

Lowering of value of currency relative to a foreign reference currency is called .....

- A Devaluation
- B Revaluation
- C Down valuation
- D Negative valuation

Answer: A

### Question 37

What does BOD5 refer to?

- A Biochemical Oxygen Demand in 5 days
- B Biochemical Oxygen Demand in 5 hours
- C Biochemical Oxygen Demand in 5 minutes
- D Biochemical Oxygen Demand in 5 Months

Answer: A

### Question 38

Kanha National Park saving the rare and almost extinct species of the Swamp Deer, also known as

- A Barasingha
- B Black Buck
- C Chinkara
- D Nilgai

Answer: A

## Join SSC Daily Quiz Telegram Group

### Question 39

Which is the highest grossing movie of all time?

- A Avatar
- B Star Wars
- C Jurassic Park
- D Deadpool

Answer: A



**Question 40**

**Which state in India has the largest cover area of forest?**

- A Uttarakhand
- B Madhya Pradesh
- C Kerala
- D Uttar Pradesh

**Answer: B**

**Question 41**

**Longest day in the Northern hemisphere is .....**

- A 21st March
- B 21st September
- C 21st June
- D 21st April

**Answer: C**

**25 SSC CHSL Mocks for just Rs. 149**

**Question 42**

**World War I broke out in the year**

- A 1904
- B 1914
- C 1924
- D 1934

**Answer: B**

**Question 43**

**Name the poet who wrote "Prithviraj Raso", a poem describing Prithviraj Chauhan's life.**

- A Vir Siroja
- B Chand Bardai
- C Meerja Umed
- D Nur Fateh

**Answer: B**

**Question 44**

**.....is the 2016 Oscar Winner for Best Supporting Actress.**

- A Alicia Vikander
- B Jennifer Jason Leigh
- C Rooney Mara
- D Kate Winslet

**Answer: A**

## SSC CHSL Free Mock Test

**Question 45**

**For every action, there is an equal and opposite reaction, is Newton's**

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

**Answer: C**

**Question 46**

**Which among the following is false about displacement?**

- A It can be positive, negative or zero
- B Displacement is never greater than Distance
- C Its SI unit is meter
- D It is always positive

**Answer: D**

**Question 47**

**The Governor takes the oath of office by**

- A Chief Justice of High Court
- B Chief Justice of India
- C President of India
- D Vice President of India

**Answer: A**

## SSC CHSL Previous Papers (DOWNLOAD PDF)

**Question 48**

**Which fundamental right is abolished by the 44th Amendment?**

- A Right to Liberty
- B Right to Property
- C Right to Equality
- D Right to Religion

**Answer: B**

**Question 49**

In which sport in Asian Games, India has won maximum Gold Medals?

- A Athletics
- B Hockey
- C Wrestling
- D Shooting

**Answer: A**

**Question 50**

"An Extraordinary Life, An Indian Destiny" is a biography on

- A Manmohan Singh
- B Sonia Gandhi
- C Shashi Tharoor
- D Indira Gandhi

**Answer: B**

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

**Mathematics**

**Instructions**

For the following questions answer them individually

**Question 51**

What is the value of  $(4a^2 - 9b^2)/(2a + 3b)$  is

- A  $2a - 3b$
- B  $2a + 3b$
- C  $2a$
- D  $3b$

**Answer: A**

**Explanation:**

Expression :  $(4a^2 - 9b^2)/(2a + 3b)$

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

$$= \frac{(2a)^2 - (3b)^2}{2a + 3b}$$

$$= \frac{(2a - 3b) \times (2a + 3b)}{2a + 3b} = 2a - 3b$$

=> Ans - (A)

## SSC CGL Free Mock Test (Latest Pattern)

### Question 52

5% discount is offered on an item. By applying a promo code the customer wins 20% cash back. What is the effective discount?

- A 28.8 percent
- B 24 percent
- C 25 percent
- D 21 percent

**Answer: B**

### Explanation:

Let the marked price of item = Rs.  $100x$

$$\text{Amount after 5\% discount} = 100x - \frac{5}{100} \times 100x$$

$$= 100x - 5x = \text{Rs. } 95x$$

$$\text{Selling price after 20\% cashback} = 95x - \frac{20}{100} \times 95x$$

$$= 95x - 19x = \text{Rs. } 76x$$

$$\Rightarrow \text{Total discounted amount} = 100x - 76x = \text{Rs. } 24x$$

$$\therefore \text{Effective discount} = \frac{24x}{100x} \times 100 = 24\%$$

### Question 53

A student multiplied a number by  $5/6$  instead of  $6/5$ . What is the percentage error in the calculation?

- A 44 percent
- B 30.56 percent
- C 15.28 percent
- D 22 percent

**Answer: B**

### Explanation:

Let the number be 30

$$\text{When the student multiplied it by } 5/6, \Rightarrow \text{original result} = \frac{5}{6} \times 30 = 25$$

$$\text{When the student multiply it by } 6/5, \Rightarrow \text{New result} = \frac{6}{5} \times 30 = 36$$

$$\Rightarrow \text{Percentage error in calculation} = \frac{(36 - 25)}{36} \times 100$$

$$= \frac{1100}{36} = 30.56\%$$

=> Ans - (B)

**Question 54**

The difference between simple and compound interests compounded annually on a certain sum of money for 2 years at 12% per annum is Rs 900. What is the value of given sum (in Rs)?

- A 125000
- B 250000
- C 62500
- D 187500

**Answer:** C

**Explanation:**

Let the given sum = Rs.  $100x$

Rate of interest = 12% and time period = 2 years

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

$$= 100x \left[ \left( 1 + \frac{12}{100} \right)^2 - 1 \right]$$

$$= 100x \left[ \left( \frac{28}{25} \right)^2 - 1 \right] = 100x \left( \frac{784 - 625}{625} \right)$$

$$= 100x \times \frac{159}{625} = \frac{636x}{25}$$

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

$$= \frac{100x \times 12 \times 2}{100} = 24x$$

$$\Rightarrow \text{Difference between simple and compound interests} = \frac{636x}{25} - 24x = 900$$

$$\Rightarrow \frac{636x - 600x}{25} = 900$$

$$\Rightarrow 36x = 900 \times 25$$

$$\Rightarrow x = \frac{900 \times 25}{36} = 25 \times 25 = 625$$

$\therefore$  Value of given sum =  $100 \times 625 = \text{Rs. } 62,500$

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

**Question 55**

Given:  $6x + 2(6-x) > 2x - 2 < 5x/2 - 3x/4$ ; then  $x$  can take which of the following values?

- A 9
- B -8
- C 5
- D -9

**Answer:** C

**Explanation:**

$$\text{Expression 1 : } 2x - 2 < \frac{5x}{2} - \frac{3x}{4}$$

$$\Rightarrow 2x - 2 < \frac{7x}{4}$$

$$\Rightarrow 8x - 8 < 7x$$

$$\Rightarrow 8x - 7x < 8$$

$$\Rightarrow x < 8 \text{ -----(i)}$$

$$\text{Expression 2 : } 6x + 2(6 - x) > 2x - 2$$

$$\Rightarrow 4x + 12 > 2x - 2$$

$$\Rightarrow 4x - 2x > -12 - 2$$

$$\Rightarrow 2x > -14$$

$$\Rightarrow x > -7 \text{ -----(ii)}$$

Combining inequalities (i) and (ii), we get :  $-7 < x < 8$

Thus, only value that  $x$  can take among the options = 5

$\Rightarrow$  Ans - (C)

#### Question 56

At least one pair of opposite angles is congruent in a .....

A Cyclic quadrilateral

B Trapezium

C Isosceles trapezium

D Kite

**Answer:** D

#### Explanation:

If a quadrilateral is a kite, then exactly one pair of opposite angles are congruent.

If a quadrilateral is an isosceles trapezium, then each pair of base angles are congruent.

$\Rightarrow$  Ans - (D)

#### Question 57

A rice trader buys 25 quintals of rice for Rs 1,825. 27% rice is lost in transportation. At what rate should he sell to earn 20% profit?

A Rs 44.4 per quintal

B Rs 120 per quintal

C Rs 87.6 per quintal

D Rs 115.8 per quintal

**Answer:** B

#### Explanation:

Cost price = Rs. 1825

Quantity of rice with the trader after transportation lost =  $\frac{73}{100} \times 25$

= 18.25 quintals

To have 20% profit, total selling price of the trader should be =  $\frac{120}{100} \times 1825$

= Rs. 2190

$\therefore$  Selling price per quintal =  $\frac{2190}{18.25} = \text{Rs.}120$

$\Rightarrow$  Ans - (B)

**Question 58**

$(1 + \sin A)/(1 - \sin A)$  is equal to?

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

**Answer: B**

**Explanation:**

Expression :  $\frac{1 + \sin A}{1 - \sin A}$

Replacing  $\sin A$  by  $\frac{1}{\operatorname{cosec} A}$

$$= \frac{1 + \frac{1}{\operatorname{cosec} A}}{1 - \frac{1}{\operatorname{cosec} A}}$$

$$= \frac{1 + \frac{\operatorname{cosec} A}{\operatorname{cosec} A}}{\frac{\operatorname{cosec} A - 1}{\operatorname{cosec} A}}$$

$$= \frac{\operatorname{cosec} A + 1}{\operatorname{cosec} A - 1}$$

=> Ans - (B)

**Question 59**

Expanded and simplification of  $(x + 3)(x - 1)$  will be equal to

- A  $x^2 + 2x - 3$
- B  $x^2 + 3x + 2$
- C  $x^2 - 2x + 3$
- D  $x^2 + 3x - 2$

**Answer: A**

**Explanation:**

Expression :  $(x + 3)(x - 1)$

$$= x(x - 1) + 3(x - 1)$$

$$= x^2 - x + 3x - 3$$

$$= x^2 + 2x - 3$$

=> Ans - (A)

**Question 60**

If  $4/5$ th of  $6/7$ th of a number is 216, then  $8/9$ th of that number will be

- A 179
- B 280
- C 160
- D 269

**Answer: B**

**Explanation:**

Let the number be  $x$

According to ques,

$$\Rightarrow \frac{4}{5} \times \frac{6}{7} \times x = 216$$

$$\Rightarrow x = 216 \times \frac{35}{24} = 9 \times 35$$

$$\therefore 8/9\text{th of the number} = \frac{8}{9} \times (35 \times 9)$$

$$= 8 \times 35 = 280$$

$\Rightarrow$  Ans - (B)

**SSC CHSL Free App**

**Question 61**

In an army selection process, the ratio of selected to unselected candidates was 9:2. If 80 less had applied and 20 less selected, the ratio of selected to unselected would have been 5:1. How many candidates had applied for the process?

- A 6160
- B 1540
- C 3080
- D 9240

**Answer: C**

**Explanation:**

Let  $11x$  candidates applied for the process.

Candidates selected =  $9x$  and candidates not selected =  $2x$

If candidates applied =  $11x - 80$

Candidates selected =  $9x - 20$

$$\Rightarrow \text{Candidates not selected} = (11x - 80) - (9x - 20) = 2x - 60$$

According to ques,

$$\Rightarrow \frac{9x-20}{2x-60} = \frac{5}{1}$$

$$\Rightarrow 9x - 20 = 10x - 300$$

$$\Rightarrow x = 300 - 20 = 280$$

$$\therefore \text{Number of candidates who applied for the process} = 11 \times 280 = 3080$$

**Question 62**

If  $\sin 30^\circ + \cos 45^\circ = X$ , then the value of  $X$ .

- A  $\frac{(2\sqrt{2}-\sqrt{3})}{\sqrt{2}}$
- B  $\frac{4}{\sqrt{3}}$
- C  $\frac{(1-\sqrt{3})}{\sqrt{3}}$



D  $\frac{(1+\sqrt{2})}{2}$

Answer: D

Explanation:

Expression :  $\sin 30^\circ + \cos 45^\circ = X$

$$= \frac{1}{2} + \frac{1}{\sqrt{2}}$$

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

=> Ans - (D)

Question 63

Product of digits of a 2-digit number is 18. If we add 63 to the number, the new number obtained is a number formed by interchange of the digits. Find the number.

A 92

B 29

C 36

D 63

Answer: B

Explanation:

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

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

$$\text{Product of digits} = xy = 18 \text{ -----(i)}$$

$$\text{According to question, } \Rightarrow 10x + y + 63 = 10y + x$$

$$\Rightarrow 9y - 9x = 63$$

$$\Rightarrow y - x = \frac{63}{9} = 7 \text{ -----(ii)}$$

Substituting value of  $y$  from equation (ii) in (i), we get :

$$\Rightarrow x(7 + x) = 18$$

$$\Rightarrow x^2 + 7x - 18 = 0$$

$$\Rightarrow x^2 + 9x - 2x - 18 = 0$$

$$\Rightarrow x(x + 9) - 2(x + 9) = 0$$

$$\Rightarrow x = 2, -9$$

Since  $x$  is a digit and can't be negative,  $\Rightarrow x = 2$

$$\text{Substituting it in equation (ii), } \Rightarrow y = 7 + 2 = 9$$

$\therefore$  Number = 29

## Daily Free SSC Practice Set

Question 64

The average weight of Somdev, Gurdeep and Ritu is 85 kg. If the average weight of Somdev and Gurdeep be 79 kg and that of Gurdeep and Ritu be 73 kg, then the weight of Gurdeep is

A 78

- B 49  
C 72  
D 90

Answer: B

**Explanation:**

Let respective weights of Somdev, Gurdeep and Ritu is  $s, g, r$  kg

$$\text{Average weight of the three} = \frac{s+g+r}{3} = 85$$

$$\Rightarrow s + g + r = 85 \times 3 = 255 \text{ kg} \text{-----(i)}$$

$$\text{Similarly, Total weight of Somdev and Gurdeep} = s + g = 79 \times 2 = 158 \text{ kg} \text{-----(ii)}$$

$$\text{Total weight of Gurdeep and Ritu} = g + r = 73 \times 2 = 146 \text{ kg} \text{-----(iii)}$$

$$\text{Adding equations(ii) and (iii),} \Rightarrow s + 2g + r = 158 + 146 = 304 \text{-----(iv)}$$

Subtracting equation (i) from (iv), we get :

$$\Rightarrow g = 304 - 255 = 49 \text{ kg}$$

**Question 65**

If  $\sin C + \sin D = X$ , then the value of X is?

- A  $2\cos\left[\frac{C+D}{2}\right]\sin\left[\frac{C-D}{2}\right]$   
B  $2\sin\left[\frac{C+D}{2}\right]\cos\left[\frac{C-D}{2}\right]$   
C  $2\cos\left[\frac{C+D}{2}\right]\cos\left[\frac{C-D}{2}\right]$   
D  $2\sin\left[\frac{C+D}{2}\right]\sin\left[\frac{D-C}{2}\right]$

Answer: B

**Explanation:**

$$\text{We know that, } \sin(x + y) = \sin x \cos y + \cos x \sin y \text{-----(i)}$$

$$\text{and } \sin(x - y) = \sin x \cos y - \cos x \sin y \text{-----(ii)}$$

Adding equations (i) and (ii), we get :

$$\sin(x + y) + \sin(x - y) = 2\sin x \cos y \text{-----(iii)}$$

$$\text{Let } x + y = C \text{ and } x - y = D$$

$$\Rightarrow x = \frac{C+D}{2}$$

$$\text{and } y = \frac{C-D}{2}$$

Substituting above values in equation (iii)

$$\Rightarrow \sin C + \sin D = 2\sin\left(\frac{C+D}{2}\right)\cos\left(\frac{C-D}{2}\right)$$

$\Rightarrow$  Ans - (B)

**Question 66**

4 hrs after a goods train passed a station, another train travelling at a speed of 72 km/hr following that goods train passed through that station. If after passing the station the train overtakes the goods train in 8 hours. What is the speed of the goods train?

- A 48 km/hr  
B 57.6 km/hr

C 72 km/hr

D 38.4 km/hr

**Answer: A**

**Explanation:**

Let the speed of goods train =  $x$  km/hr

Speed of another train = 72 km/hr

Distance between the two trains =  $72 \times 4 = 288$  km

The trains are moving in same direction,  $\Rightarrow$  Relative speed =  $(72 - x)$  km/hr

Time =  $4 + 8 = 12$  hours

$\Rightarrow$  speed = distance/time

$$\Rightarrow 72 - x = \frac{288}{12} = 24$$

$$\Rightarrow x = 72 - 24 = 48 \text{ km/hr}$$

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

**Question 67**

Find co-ordinates of the mid point of the segment joining points C (3,-5) and D (-7,3).

A (-2, -1)

B (5, -4)

C (-5, 4)

D (2, 1)

**Answer: A**

**Explanation:**

Coordinates of mid point of line joining points  $(x_1, y_1)$  and  $(x_2, y_2) = \left( \frac{x_1+x_2}{2}, \frac{y_1+y_2}{2} \right)$

Let coordinates of mid point  $(x, y)$

C = (3,-5) and D = (-7,3)

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

$$\Rightarrow x = \frac{-4}{2} = -2$$

$$\text{Similarly, } y = \frac{-5+3}{2}$$

$$\Rightarrow y = \frac{-2}{2} = -1$$

Thus, coordinates of mid point (-2,-1)

**Question 68**

A line passing through the origin perpendicularly cuts the line  $2x + 3y = 6$  at point M. Find M?

A  $(12/13, 18/13)$

B  $(6/7, 9/7)$

C  $(6/13, -9/13)$

D  $(-6/7, 9/7)$

**Answer: A**

**Explanation:**

Slope of line  $2x + 3y = 6$  is  $(-\frac{2}{3})$

Product of slopes of two perpendicular lines = -1

Let slope of line passing through origin =  $m$

$$\Rightarrow m \times \frac{-2}{3} = -1$$

$$\Rightarrow m = \frac{3}{2}$$

Equation of line passing through origin and having slope  $m$  is  $y = mx$  (Since y intercept is zero)

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

$$\Rightarrow 3x = 2y$$

Solving the above equations, we get the intersection point  $M = (\frac{12}{13}, \frac{18}{13})$

$\Rightarrow$  Ans - (A)

**Question 69**

**P and Q can do a project in 6 and 12 days respectively. In how many days can they complete 25% of the project if they work together?**

**A** 2 days

**B** 4 days

**C** 1 day

**D** 8 days

**Answer: C**

**Explanation:**

Let total work to be done = 12 units

P can complete the work alone in 6 days

$$\Rightarrow \text{P's efficiency} = \frac{12}{6} = 2 \text{ units/day}$$

Q can complete the work alone in 12 days

$$\Rightarrow \text{Q's efficiency} = \frac{12}{12} = 1 \text{ unit/day}$$

(P + Q)'s 1 day's work =  $2 + 1 = 3$  units/day

$$\therefore \text{Time taken by them together to complete 25% of the work} = \frac{25}{100} \times \frac{12}{3}$$

$$= \frac{1}{4} \times 4 = 1 \text{ day}$$

**1500+ Very Important Free SSC Solved Questions**

**Question 70**

**Find the radius of the circle if the length of its arc is 33 cm whose corresponding central angle is  $90^\circ$  ?**

**A** 21 cm

**B** 14 cm

**C** 7 cm

D 28 cm

Answer: A

Explanation:

Central angle =  $\theta = 90^\circ$  and let radius =  $r$  cm

$$\text{Length of arc} = \frac{\theta}{360} \times 2\pi r = 33$$

$$\Rightarrow \frac{90}{360} \times 2 \times \frac{22}{7} \times r = 33$$

$$= \frac{1}{4} \times 44 \times r = 33 \times 7 \text{ cm}$$

$$\Rightarrow r = \frac{33 \times 7}{11} = 21 \text{ cm}$$

$\Rightarrow$  Ans - (A)

Question 71

A cylindrical vessel of radius 6 cm is partially filled with water. By how much will the water level rise if a sphere of radius 5 cm is completely immersed in this water? (Take  $\pi = 22/7$ )

A 6.67 cm

B 5.56 cm

C 6.94 cm

D 4.63 cm

Answer: D

Explanation:

Radius of sphere,  $R = 5$  cm

Radius of cylinder,  $r = 6$  cm and height of cylinder =  $h$  cm

The rise in water level is equal to the height of cylinder when volumes of both solids is equal.

$\Rightarrow$  Volume of cylinder = Volume of sphere

$$\Rightarrow \pi r^2 h = \frac{4}{3} \pi R^3$$

$$\Rightarrow (6)^2 \times h = \frac{4}{3} \times (5)^3$$

$$\Rightarrow h = \frac{4 \times 125}{36 \times 3} = \frac{125}{27}$$

$$\Rightarrow h = 4.63 \text{ cm}$$

Question 72

Refer the below data table and answer the following Question.

Division / Standard	Boys	Girls
Division A / Standard 5	30	25
Division B / Standard 5	15	25
Division C / Standard 5	40	25
Division A / Standard 6	20	40
Division B / Standard 6	10	20
Division C / Standard 6	30	40

What is the ratio of boys to girls?

A 29 : 35

B 35 : 29

C 31 : 37

D 37 : 31

Answer: A

**Explanation:**

Total number of boys =  $30 + 15 + 40 + 20 + 10 + 30 = 145$

Total number of girls =  $25 + 25 + 25 + 40 + 20 + 40 = 175$

=> Required ratio =  $\frac{145}{175}$

=  $29 : 35$

=> Ans - (A)

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

Question 73

Refer the below data table and answer the following Question.

Marks	Number of Students
40 and above	26
30 and above	42
30 and above	55
10 and above	77
0 and above	107

How many students have scored marks 20 or more but less than 40?

A 55

B 29

C 42

D 97

Answer: B

**Explanation:**

Number of students who scored :

40 and above = 26

30 and above =  $42 - 26 = 16$

20 and above =  $55 - 42 = 13$

10 and above =  $77 - 55 = 22$

0 and above =  $107 - 77 = 30$

=> Students who have scored marks 20 or more but less than 40 =  $16 + 13 = 29$

=> Ans - (B)

Question 74

Refer the below data table and answer the following Question.

Year	GDP growth rate for the year (in %)
2011	8
2012	5
2013	-6
2014	6
2015	-8

If the GDP of the country was \$1 trillion at the end of 2013, what was it at the beginning of 2015?

- A \$0.94 trillion
- B \$0.92 trillion
- C \$1.06 trillion
- D \$0.98 trillion

Answer: C

**Explanation:**

GDP at the beginning of 2015 is equal to the GDP at the end of 2014

=> GDP growth rate in 2014 = 6%

GDP at the end of 2013 = GDP at the beginning of 2014 = \$1 trillion

∴ GDP at the beginning of 2015 =  $\frac{106}{100} \times 1$  trillion

= \$1.06 trillion

=> Ans - (C)

Question 75

Refer the below data table and answer the following Question.

Subjects	Marks Scored
English	80
Hindi	40
Math	30
Science	80
Arts	30

Five points are to be deducted from the students average of marks scored because of poor attendance. What will be the students net average marks scored?

- A 42
- B 37
- C 52
- D 47

Answer: D

**Explanation:**

Total marks scored by the student =  $80 + 40 + 30 + 80 + 30 = 260$

=> Average marks =  $\frac{260}{5} = 52$

But due to poor attendance, 5 marks are deducted

∴ Net average =  $52 - 5 = 47$

⇒ Ans - (D)

## Latest Job Updates on Telegram - Join here

### English

#### Instructions

For the following questions answer them individually

#### Question 76

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'.

I asked the shopkeeper (A) "Do you have change(B) for a five hundred rupees note?" (C) / No error (D)

A A

B B

C C

D D

Answer: C

## Join SSC Daily Quiz Telegram Group

#### Question 77

In the following question, out of the four alternatives, select the alternative which is the best substitute of the phrase. things that have been discarded as worthless.

A remains

B flotsam

C shambles

D havoc

Answer: B

#### Question 78

Improve the bracketed part of the sentence.

(I myself think) that this investigation is biased.

A I think myself

B I thought myself

C I myself thought

D no improvement

Answer: D



Question 79

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'.

Each boy was given (A)/a toy as a parting gift,(B)/which made them happy.(C)/No error(D)

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

Answer: D

## 25 SSC CHSL Mocks for just Rs. 149

Question 80

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 .....with which she manages the task is remarkable.

- A calm
- B comfort
- C ease
- D satisfaction

Answer: C

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 express the same sentence in Indirect/Direct speech.

The preacher said, "May God grant peace to the departed!"

- A The preacher prays that God will grant peace to the departed.
- B The preacher prayed that God would grant peace to the departed.
- C The preacher said that God may grant peace to the departed.
- D The preacher said, God may grant peace to the departed.

Answer: B

Question 82

Select the antonym of ingestion

- A gulp
- B slug
- C excrete
- D chug

Answer: C

## SSC CHSL Free Mock Test

### Question 83

Rearrange the parts of the sentence in correct order.

Today, however, when one in four rural Indians  
P-in identifying the poor are far greater  
Q-is poor, our chances of being wrong  
R-and one in six urban Indians

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

Answer: B

### Question 84

Improve the bracketed part of the sentence. Fans (queue) for the concert tickets since early morning.

- A has queued up
- B have had queued
- C have been queuing up
- D no improvement

Answer: C

### Question 85

In the following question, out of the four alternatives, select the alternative which is the best substitute of the phrase. become apparent through the appearance of symptoms.

- A manifest
- B distinct
- C visible
- D divulged

Answer: A

## SSC CHSL Previous Papers (DOWNLOAD PDF)

### Question 86

Select the synonym of splinter

- A stub
- B share

- C chip
- D friction

Answer: C

**Question 87**

Rearrange the parts of the sentence in correct order.

In that case,  
P-put together the best gender-just  
Q-practices from all Personal Laws  
R-a Uniform Civil Code would simply

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

Answer: A

**Question 88**

In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the idiom/phrase.  
Wear your heart on your sleeve

- A a very bold person
- B a noble pure person
- C make one's feelings apparent
- D being overtly polite at all times

Answer: C

## SSC CGL Previous Papers (DOWNLOAD PDF)

**Question 89**

Select the word with the correct spelling.

- A comando
- B coolants
- C limphoid
- D permuted

Answer: B

**Question 90**

Select the synonym of spartan

- A garish

- B forgiven
- C civilized
- D brave

Answer: D

**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.

The Directors failed to understand the .....behind the decision to suspend the manager.

- A belief
- B politics
- C ideology
- D rationale

Answer: D

## SSC CGL Free Mock Test (Latest Pattern)

**Question 92**

In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the idiom/phrase. When it rains, it pours

- A one getting much less than what one expected
- B calamity always occurs in bad times
- C you always fall into trouble when you are least prepared
- D When something bad occurs, it usually occurs more than once

Answer: D

**Question 93**

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.

Dark clouds have overcast the evening sky.

- A By the dark clouds the evening sky was overcast.
- B The evening sky has been overcast by the dark clouds.
- C Dark clouds overcastted the evening sky.
- D The sky of the evening was overcasted by dark clouds.

Answer: B

**Question 94**

Select the antonym of horrify

- A affright

B petrify

C appall

D soothe

Answer: D

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

### Question 95

Select the word with the correct spelling.

A pillages

B splitter

C palenes

D bloting

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.

Words give reality to life. Some do better than others, offering .....(1) as in twenty shades of grey. They do not .....(2) describe reality, they create it, giving it colour, depth, and form. ....(3) all, what I am really interested in here is talking about just one word which reveals a great .....(4) about India. The word tells us about its politics, its social self, and its communities. .... (5) , that word is not jugaad. It's close, but the word is matlabi.

### Question 96

(1)

A distinction

B nuance

C hint

D implication

Answer: B

### Question 97

(2)

A so

B just

C somewhat

D whatsoever

Answer: B

## SSC CHSL Study Material

Question 98

(3)

- A Hence
- B So
- C Henceforth
- D But

Answer: D

Question 99

(4)

- A deal
- B amount
- C quantity
- D information

Answer: A

Question 100

(5)

- A Because
- B But
- C No
- D Yes

Answer: C

**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**