

SSC CHSL 8 Jan 2017 Morning Shift

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)

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)

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)

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)

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.

$$-1 + 2 = 1$$

$$1 + 3 = 4$$

$$4 + 5 = 9$$

$$9 + 7 = 16$$

$$16 + 11 = \mathbf{27}$$

=> 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: C

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)

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

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

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

$$= 24 - 21 = 3$$

=> 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 ttprrp

C tpptpp

D ttprrp

Answer: C

Explanation:

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

= trprpt trprpt

=> Ans - (C)

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

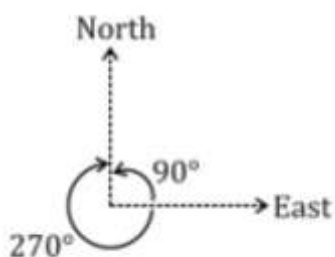
B South

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 S 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.

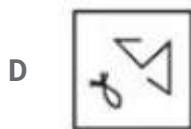
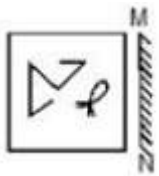
Hemant is the son of Om.

=> Nishi is the cousin of Om.

=> Ans - (C)

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?

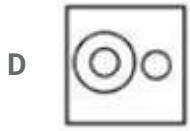
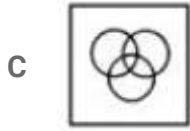
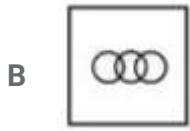


Answer: A

Question 24

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

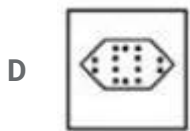
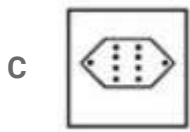
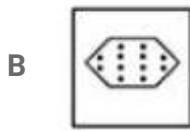
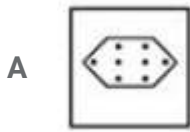




Answer: A

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

General Awareness

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

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

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

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

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

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

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

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

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

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)

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 $\frac{5}{6}$ instead of $\frac{6}{5}$. 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

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

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

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

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

\Rightarrow 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 = $100 \times 625 = \text{Rs. } 62,500$

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 = $\frac{2190}{18.25} = Rs.120$

=> 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 $\frac{1}{\operatorname{cosec} A}$

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

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

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

=> 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 $\frac{4}{5}$ th of $\frac{6}{7}$ th of a number is 216, then $\frac{8}{9}$ 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,

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

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

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

$$= 8 \times 35 = 280$$

=> Ans - (B)

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 = $9x - 20$

=> 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 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, $\Rightarrow x = 2$

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

\therefore Number = 29

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 $2\cos[(C+D)/2]\sin[(C-D)/2]$
- B $2\sin[(C+D)/2]\cos[(C-D)/2]$
- C $2\cos[(C+D)/2]\cos[(C-D)/2]$
- D $2\sin[(C+D)/2]\sin[(D-C)/2]$

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

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

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

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)

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

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

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 (6/11, 9/11)

B (6/7, 9/7)

C (6/11, -9/11)

D (-6/7, 9/7)

Answer: A

Explanation:

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

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 $M = \left(\frac{6}{11}, \frac{9}{11}\right)$

\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

$$\begin{aligned} \therefore \text{Time taken by them together to complete 25\% of the work} &= \frac{25}{100} \times \frac{12}{3} \\ &= \frac{1}{4} \times 4 = 1 \text{ day} \end{aligned}$$

Question 70

Find the radius of the circle if the length of its arc is 33 cm whose corresponding central angle is 90° ?

- 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, $R = 5 \text{ cm}$

Radius of cylinder, $r = 6 \text{ cm}$ and height of cylinder = $h \text{ cm}$

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)

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

\therefore 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)

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

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

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.

Thewith 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

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

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

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 thebehind the decision to suspend the manager.

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

Answer: D

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

Question 95

Select the word with the correct spelling.

- A pillages
- B spliter
- 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

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 8 Jan 2017 Evening Shift

Reasoning

Instructions

For the following questions answer them individually

Question 1

Select the related word/letters/number from the given alternatives. Agra : Yamuna :: Varanasi : ?

- A Damodar
- B Betwa
- C Ganga
- D Son

Answer: C

Explanation:

The river Yamuna flows through Agra, similarly river *Ganga* flows in Varanasi.

=> Ans - (C)

Question 2

Select the related word/letters/number from the given alternatives. IJ : PR :: ? : SU

- A IJ
- B LM
- C EF
- D LI

Answer: B

Explanation:

Expression = IJ : PR :: ? : SU

The pattern followed is :



Thus, **LM** : SU

=> Ans - (B)

Question 3

Select the related word/letters/number from the given alternatives. CD : IP :: EB : ?

A HI

B KN

C YA

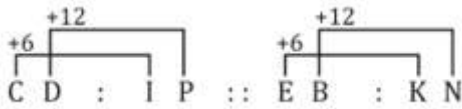
D XY

Answer: B

Explanation:

Expression = CD : IP :: EB : ?

The pattern followed is :



Thus, EB : **KN**

=> Ans - (B)

Question 4

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

12 : 72 :: 14 : ?

A 98

B 91

C 42

D 60

Answer: A

Explanation:

Expression = 12 : 72 :: 14 : ?

The pattern followed is = $x : \frac{x^2}{2}$

Eg :- $12 : \frac{12^2}{2} = 12 : 72$

Similarly, $\frac{14^2}{2} = \frac{196}{2} = 98$

=> Ans - (A)

Question 5

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

- A Param Vir Chakra
- B Ashoka Chakra
- C Vir Chakra
- D Maha Vir Chakra

Answer: B

Explanation:

Ashoka Chakra is present in Indian flag, hence it is the odd one out.

=> Ans - (B)

Question 6

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

- A BG
- B HN
- C SY
- D PV

Answer: A

Explanation:

(A) : B (+5 letters) = G

(B) : H (+6 letters) = N

(C) : S (+6 letters) = Y

(D) : P (+6 letters) = V

=> Ans - (A)

Question 7

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

- A 4312
- B 4216
- C 9218

D 3618

Answer: B

Explanation:

The product of first two digits is equal to the last two digits, but $4 \times 2 \neq 16$, hence 4216 is the odd one out.

=> Ans - (B)

Question 8

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

A 64, 23

B 42, 12

C 63, 18

D 83, 20

Answer: D

Explanation:

Second number is multiplied by 2, and then it is reversed to get the first number.

$$23 \times 2 = 46 \equiv 64$$

$$12 \times 2 = 24 \equiv 42$$

$$18 \times 2 = 36 \equiv 63$$

$$20 \times 2 = 40 \equiv 04$$

=> 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. Beijing Olympics, London Olympics, Rio Olympics, ?

A Moscow Olympics

B Athens Olympics

C Tokyo Olympics

D Delhi Olympics

Answer: C

Explanation:

Sequence of summer Olympic games is given.

= Beijing Olympics -> London Olympics -> Rio Olympics -> Tokyo Olympics

=> Ans - (C)

Question 10

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

5, 10, 13, 52, 57, ?

A 285

B 225

C 342

D 390

Answer: C

Explanation:

The pattern followed is :

$$5 \times 2 = 10$$

$$10 + 3 = 13$$

$$13 \times 4 = 52$$

$$52 + 5 = 57$$

$$57 \times 6 = \mathbf{342}$$

=> Ans - (C)

Question 11

In the following question, two statements are given each followed by two conclusions I and II. You have to consider the statement 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) All hill-stations have a sunset point. (II) X is a hill station.

Conclusion:

(I) X has a sunset point.

(II) Place other than hill-station do not have sunset point.

A Conclusion I follows

B Conclusion II follows

C Neither I nor II follows

D Both I and II follows

Answer: A

Question 12

A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series. BE, HK, NQ, ?

A ST

B TU

C TW

D TS

Answer: C

Explanation:

Expression : BE, HK, NQ, ?

The pattern followed in each letter of the terms is :

1st letter : B (+6 letters) = H (+6 letters) = N (+6 letters) = T

2nd letter : E (+6 letters) = K (+6 letters) = Q (+6 letters) = W

Thus, missing term = **TW**

=> 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.

?, YV, BY, FC

A MN

B VS

C XU

D WT

Answer: D

Explanation:

Expression : ?, YV, BY, FC

The pattern followed in each letter of the terms is :

1st letter : W (+2 letters) = Y (+3 letters) = B (+4 letters) = F

2nd letter : T (+2 letters) = V (+3 letters) = Y (+4 letters) = C

Thus, missing term = **WT**

=> Ans - (D)

Question 14

In a company all Mondays and Sundays are offs. If a month starts with a Monday and has 31 days then how many offs will be there in that month?

A 7

B 8

C 9

D 5

Answer: C

Explanation:

It is given that all Mondays and Sundays are offs.

If a month starts with a Monday and has 31 days, then number of Mondays = 5

But number of Sundays = 4

Thus, total off days = 4+5 = 9

=> Ans - (C)

Question 15

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

i. Speaker

ii. Surreptitious

iii. Spontaneous

iv. Spurious

A iv, ii, i, iii

B iii, ii, iv, i

C iv, iii, i, ii

D i, iii, iv, ii

Answer: D

Explanation:

As per the order of dictionary :

= Speaker -> Spontaneous -> Spurious -> Surreptitious

≡ i, iii, iv, ii

=> Ans - (D)

Question 16

In a certain code language, "CONDITION" is written as "@#^\$*!#^". How is "NOTION" written in that code language?

A ^#!*^#

B ^!##^

C ^#!#^

D ^#!*#^

Answer: D

Explanation:

The codes for each letter is given :

N -> ^

O -> #

T -> !

I -> *

O -> #

N -> ^

Thus, NOTION : ^#!*#^

=> Ans - (D)

Question 17

Find the missing number

8	5	6
7	?	8
57	46	49

A 4

B 2

C 9

D 5

Answer: C

Question 18

If "*" denotes "added to", "&" denotes "divided by", "@" denotes "multiplied by" and "%" denotes "subtracted from", then $135 \& 15 @ 10 \% 3 * 6 = ?$

A 47

B 89

C 93

D 100

Answer: C

Explanation:

Expression : $135 \& 15 @ 10 \% 3 * 6 = ?$

$$\equiv 135 \div 15 \times 10 - 3 + 6$$

$$= (9 \times 10) + 3$$

$$= 90 + 3 = 93$$

=> Ans - (C)

Question 19

In the following question, which one set of letters when sequentially placed at the gaps in the given letter series shall complete it?

m_o_mn_p_no_

A mmnno

B ooppn

C mnooo

D npomp

Answer: D

Explanation:

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

$$= \mathbf{mnop\ mnop\ mnop}$$

=> Ans - (D)

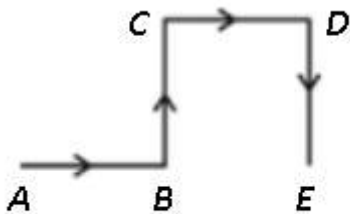
Question 20

A man moves towards the east and then takes a left turn. After covering some distance in that direction, he takes a right turn and finally, takes another right turn. Which direction is the man facing now?

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

Answer: C

Explanation:



Let the man starts from point A and moves towards the east to reach B and then takes a left turn and move northwards to reach C. Then, he takes a right turn and finally, takes another right turn to stop at point E.

Thus, the man is facing south direction 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 S 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 21, 67 etc. and 'R' can be represented by 66, 57 etc. Similarly, you have to identify the set for the word 'TOAST'.

MATRIX 1:

	0	1	2	3	4
0	T	R	A	O	B
1	W	U	N	H	L
2	E	N	S	G	O
3	N	Y	P	O	M
4	H	T	O	F	A

MATRIX 2:

	5	6	7	8	9
5	T	A	R	I	Q
6	X	R	N	W	B
7	C	S	O	E	U
8	S	N	T	M	S
9	G	B	E	R	A

A 41, 33, 02, 88, 87

B 55, 77, 56, 96, 00

C 87, 02, 11, 86, 55

D 00, 24, 44, 76, 41

Answer: D

Explanation:

(A) : 41, 33, 02, 88, 87 = TOAMT

(B) : 55, 77, 56, 96, 00 = TOABT

(C) : 87, 02, 11, 86, 55 = TAUNT

(D) : 00, 24, 44, 76, 41 = **TOAST**

=> Ans - (D)

Question 22

Introducing a boy Rahul says, "He is the son of the brother of the only daughter of my maternal grandfather". How is the boy related to the Rahul?

- A Grandfather
- B Son
- C Cousin
- D Father

Answer: C

Explanation:

Only daughter of Rahul's maternal grandfather = Rahul's mother

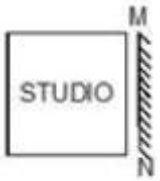
That boy is son of brother of Rahul's mother, => That boy is Rahul's mother's nephew.

=> The boy is Rahul's cousin.

=> Ans - (C)

Question 23

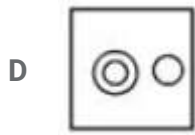
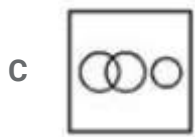
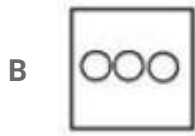
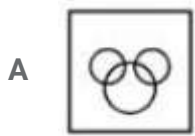
If a mirror is placed on the line MN, then which of the answer figures is the right image of the given figure?



Answer: A

Question 24

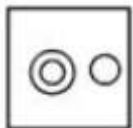
Identify the diagram that best represents the relationship among the given classes. Liquid, Pizza, Milk



Answer: D

Explanation:

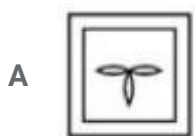
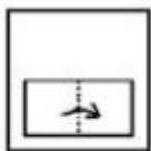
Milk is in liquid form, thus all milk is liquid, and pizza is neither related to milk nor liquid. Thus, the last diagram best represents the relationship among the given classes.

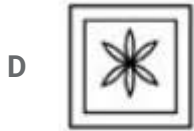
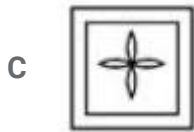


=> Ans - (D)

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: A

General Awareness

Instructions

For the following questions answer them individually

Question 26

Which of the following is not an Operating System?

- A Windows Vista
- B Linux
- C Microsoft Office
- D Apple's Mac OS

Answer: C

Question 27

Venn diagram was invented by

- A Lucien Vidi
- B John Venn
- C Theophilus Van Kannel

D Lewis Urry

Answer: B

Question 28

What is the total number of bones in the human body?

A 206

B 103

C 309

D 412

Answer: A

Question 29

Emblca officinalis is the scientific name of

A Peepal

B Mango

C Amla

D Drumstick

Answer: C

Question 30

Sponges belongs to the phylum

A Protozoa

B Annelida

C Porifera

D Cnidaria

Answer: C

Question 31

Release of which among the following is the primary reason for depletion of the ozone layer?

- A Nitrous oxide
- B Hydrogen dioxide
- C Chlorofluro carbon
- D Carbon monoxide

Answer: C

Question 32

Which of the following molecules is joined by a double covalent bond?

- A Cl₂
- B O₂
- C N₂
- D He₂

Answer: B

Question 33

The renowned Temple at Ranakpur is aTemple.

- A Shiva
- B Jain
- C Krishna
- D Ram

Answer: B

Question 34

Jallikattu is associated with

- A Trichur

B Karthigai

C Onam

D Pongal

Answer: D

Question 35

If price of an article decreases from Rs. 12 to Rs. 10, quantity demanded increases from 1000 units to 1400 units. Find point elasticity of demand?

A 2.4

B -2

C -2.4

D 2

Answer: C

Question 36

Who generally presents the Finance Budget in Indian Parliament?

A RBI Governor

B Budget Minister

C Finance Minister

D Finance Secretary

Answer: C

Question 37

Which gas contributes most to the Greenhouse effect?

A Water vapour

B Ozone

C Oxygen

D Nitrogen

Answer: A

Question 38

Corbett National Park was established to protect which animal?

- A** Bengal Tigers
- B** Snow Leopards
- C** Asiatic Lions
- D** One-Horned Rhinos

Answer: A

Question 39

Subramanya Bharthi was a noted

- A** Boxer
- B** Swimmer
- C** Poet
- D** Painter

Answer: C

Question 40

Which state does not share a common border with Chhattisgarh?

- A** Andhra Pradesh
- B** Odisha
- C** Jharkhand
- D** Maharashtra

Answer: A

Question 41

Name the longest river in India.

- A Brahmaputra
- B Ganga
- C Godavari
- D Krishna

Answer: B

Question 42

Quit India Movement was launched by Mahatma Gandhi in

- A 1885
- B 1942
- C 1947
- D 1939

Answer: B

Question 43

Which Freedom Fighter addressed Mahatma Gandhi as "Father of the Nation" for the 1st time?

- A Jawaharlal Nehru
- B Subhash Chandra Bose
- C Sarojini Naidu
- D Chandra Shekhar Azad

Answer: B

Question 44

Name the first Indian who got Nobel Prize in physics.

- A CK Naidu
- B Rangnath Mishra
- C Amartya Sen

D CV Raman

Answer: D

Question 45

Which physical quantity is measured in 'siemens'?

A Electric potential

B Electrical conductance

C Magnetic flux

D Refractive index

Answer: B

Question 46

Rate of change of momentum is

A Area

B Pressure

C Force

D Velocity

Answer: C

Question 47

All of the following are the aims of Lok Adalat, except

A Secure justice to the weaker sections

B Mass disposal of the cases

C Give the power to rule in the hands of the common man

D Minimize cost and delay

Answer: C

Question 48

What is the salary per month of the President of India?

- A Rs 1,50,000
- B Rs 1,00,000
- C Rs 75,000
- D Rs 50,000

Answer: A

Question 49

Shital Mahajan is associated with which sport?

- A Sky Diving
- B Shooting
- C Discus Throw
- D Cricket

Answer: A

Question 50

Who is the author of the book, 'A Suitable Boy'?

- A Vikram Seth
- B Arun Shourie
- C Amrita Pritam
- D Mahashweta Devi

Answer: A

Instructions

For the following questions answer them individually

Question 51

Simple interest on a certain sum of money for 3 years at 8% per annum is half the compound interest on Rs 1200 for 2 years at 10% per annum. The sum placed on simple interest is

- A Rs 525
- B Rs 1050
- C Rs 260
- D Rs 420

Answer: A

Explanation:

Sum for compound interest = Rs. 1200

Rate of interest = 10% and time period = 2 years

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

$$= 1200\left[\left(1 + \frac{10}{100}\right)^2 - 1\right]$$

$$= 1200\left[\left(\frac{11}{10}\right)^2 - 1\right] = 1200\left(\frac{121-100}{100}\right)$$

$$= 12 \times 21 = \text{Rs. } 252$$

$$\Rightarrow \text{Simple interest} = \frac{252}{2} = \text{Rs. } 126$$

Let sum under simple interest = Rs. x

Rate of interest = 8% and time period = 3 years

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

$$= \frac{x \times 8 \times 3}{100} = 126$$

$$\Rightarrow x = \frac{126 \times 25}{6} = 21 \times 25 = \text{Rs. } 525$$

Question 52

If $2x + 3(5-2x) > 2 - 3x < 2x - x/3$, then x can take which of the following values?

- A 0
- B -2
- C -4

D 2

Answer: D

Explanation:

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

$$\Rightarrow 2 - 3x < \frac{5x}{3}$$

$$\Rightarrow 5x > 6 - 9x$$

$$\Rightarrow 5x + 9x > 6$$

$$\Rightarrow x > \frac{3}{7} \text{ -----(i)}$$

$$\text{Expression 2 : } 2x + 3(5 - 2x) > 2 - 3x$$

$$\Rightarrow 2x + 15 - 6x > 2 - 3x$$

$$\Rightarrow 4x - 3x < 15 - 2$$

$$\Rightarrow x < 13 \text{ -----(ii)}$$

Combining inequalities (i) and (ii), we get : $\frac{3}{7} < x < 13$

Thus, the values that x can take = 1, 2, 3, ..., 12

\Rightarrow Ans - (D)

Question 53

If $x + y = 12$ and $xy = 32$, then what is the value of $x^2 + y^2$

A 24

B 144

C 128

D 80

Answer: D

Explanation:

$$\text{Given : } (x + y) = 12 \text{ and } xy = 32$$

$$\text{Using } (x + y)^2 = x^2 + y^2 + 2xy$$

$$\Rightarrow (12)^2 = (x^2 + y^2) + (2 \times 32)$$

$$\Rightarrow (x^2 + y^2) = 144 - 64 = 80$$

\Rightarrow Ans - (D)

Question 54

Which of the following numbers is completely divisible by 99?

A 51579

B 51557

C 55036

D 49984

Answer: A

Explanation:

For a number to be divisible by 99, it must be divisible by 9 and 11

(A) : $51579 = 5 + 1 + 5 + 7 + 9 = 27$ which is divisible by 9 and also by 11

(B) : $51557 = 5 + 1 + 5 + 5 + 7 = 23$ which is not divisible by 9

(C) : $55036 = 5 + 5 + 0 + 3 + 6 = 19$ which is not divisible by 9

(D) : $49984 = 4 + 9 + 9 + 8 + 4 = 34$ which is not divisible by 9

Thus, only option (A) is divisible by 99

Question 55

If $\cos C + \cos D = x$, then value of x is

A $2\cos[(C+D)/2]\cos[(C-D)/2]$

B $2\sin[(C+D)/2]\sin[(C-D)/2]$

C $2\cos[(C+D)/2]\sin[(C-D)/2]$

D $2\sin[(C+D)/2]\cos[(C-D)/2]$

Answer: A

Explanation:

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

and $\cos(x - y) = \cos x \cos y + \sin x \sin y$ -----(ii)

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

$\cos(x + y) + \cos(x - y) = 2\cos x \cos y$ -----(iii)

Let $x + y = C$ and $x - y = D$

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

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

Substituting above values in equation (iii)

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

\Rightarrow Ans - (A)

Question 56

What is the length of the arc whose central angle is 30° and radius of the circle is 21 cm?

A 22 cm

B 16.5 cm

C 28.5 cm

D 11 cm

Answer: D

Explanation:

Central angle = $\theta = 30^\circ$ and radius = $r = 21$ cm

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

$$= \frac{30}{360} \times 2 \times \frac{22}{7} \times 21$$

$$= \frac{1}{12} \times 44 \times 3 = 11 \text{ cm}$$

\Rightarrow Ans - (D)

Question 57

A solid copper sphere of radius 9 cm is melted and reformed into a wire of radius 1 mm. What will be the length of this wire? (Take $\pi = 22/7$)

A 1166.4 metres

B 1458 metres

C 777.6 metres

D 972 metres

Answer: D

Explanation:

Radius of sphere = $R = 9$ cm

Let length of wire = h cm and radius of wire = $r = 0.1$ cm

Volume of sphere = Volume of wire

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

$$\Rightarrow \frac{4}{3} \times (9)^3 = (0.1)^2 h$$

$$\Rightarrow h = 12 \times 81 \times 100 \text{ cm}$$

$$\Rightarrow h = \frac{972 \times 100}{100} = 972 \text{ metres}$$

Question 58

The simplified form of $(4x + 3)^2(3x - 5) - (4x^3 - 12x^2 + 9x - 20)$ is

A $6x^2 - 48x - 50$

B $24x^3 + 2x^2 - 32x - 15$

C $44x^3 + 4x^2 - 102x - 25$

D $24x^3 + 8x^2 - 42x - 50$

Answer: C

Explanation:

$$\begin{aligned} \text{Expression: } & (4x + 3)^2(3x - 5) - (4x^3 - 12x^2 + 9x - 20) \\ & = [(16x^2 + 24x + 9)(3x - 5)] - (4x^3 - 12x^2 + 9x - 20) \\ & = [(48x^3 - 80x^2) + (72x^2 - 120x) + (27x - 45)] + (-4x^3 + 12x^2 - 9x + 20) \\ & = (48x^3 - 4x^3) + (-80x^2 + 72x^2 + 12x^2) + (-120x + 27x - 9x) + (-45 + 20) \\ & = 44x^3 + 4x^2 - 102x - 25 \end{aligned}$$

Question 59

The sum of a non-zero number and its reciprocal is 2. What is the number?

A 1

B 2

C 0

D 4

Answer: A

Explanation:

Let the number be x

According to ques, $\Rightarrow x + \frac{1}{x} = 2$

$$\Rightarrow \frac{x^2 + 1}{x} = 2$$

$$\Rightarrow x^2 - 2x + 1 = 0$$

$$\Rightarrow (x - 1)^2 = 0$$

$$\Rightarrow x = 1$$

\Rightarrow Ans - (A)

Question 60

What is the value of cosec -150° ?

A -2

B $2/\sqrt{3}$

C 2

D $-2/\sqrt{3}$

Answer: A

Explanation:

Expression : cosec -150°

$$= -\operatorname{cosec}(150^\circ) = -\operatorname{cosec}(180^\circ - 30^\circ)$$

$$= -\operatorname{cosec}(30^\circ) = -2$$

\Rightarrow Ans - (A)

Question 61

If $\tan A - \cot A = x$, then value of x is?

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

B $(\sin A \cos A)/(1 - 2\cos^2 A)$

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

D $(1 - 2\cos^2 A)/(\sin A \cos A)$

Answer: D

Explanation:

Expression : $\tan A - \cot A = x$

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

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

Using, $\sin^2 A = 1 - \cos^2 A$

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

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

Question 62

What is the equation of the line passing through the point (-1,3) and having x-intercept of 4 units?

A $3x - 5y = 12$

B $3x + 5y = 12$

C $3x + 5y = -12$

D $3x - 5y = -12$

Answer: B

Explanation:

Equation of line passing through points (x_1, y_1) and $(x_2, y_2) = (y - y_1) = \frac{(y_2 - y_1)}{(x_2 - x_1)}(x - x_1)$

x-intercept of 4 units implies that the line passes through (4,0)

Points given = (-1,3) and (4,0)

$$\Rightarrow \text{Equation of line} = (y - 3) = \frac{(0-3)}{(4+1)}(x + 1)$$

$$\Rightarrow (y - 3) = \frac{-3}{5}(x + 1)$$

$$\Rightarrow 5y - 15 = -3x - 3$$

$$\Rightarrow 3x + 5y = 12$$

\Rightarrow Ans - (B)

Question 63

25% discount is offered on an item. By applying a promo code the customer wins 8% cash back. What is the effective discount?

A 35.75 percent

B 35 percent

C 31 percent

D 12.5 percent

Answer: C

Explanation:

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

$$\text{Amount after 25 \% discount} = 100x - \frac{25}{100} \times 100x$$

$$= 100x - 25x = \text{Rs. } 75x$$

$$\text{Selling price after 8 \% cashback} = 75x - \frac{8}{100} \times 75x$$

$$= 75x - 6x = Rs.69x$$

$$\Rightarrow \text{Total discounted amount} = 100x - 69x = Rs.31x$$

$$\therefore \text{Effective discount} = \frac{31x}{100x} \times 100 = 31\%$$

Question 64

Prabhat has done $\frac{1}{2}$ of a job in 12 days. Santosh completes the rest of the job in 6 days. In how many days can they together do the job?

- A 12 days
- B 4 days
- C 8 days
- D 16 days

Answer: C

Explanation:

Let total work to be done = 24 units

Prabhat has done $\frac{1}{2}$ of a job i.e. $\frac{24}{2} = 12$ units in 12 days

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

Work left = $24 - 12 = 12$ units which is done by Santosh in 6 days

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

Prabhat and Santosh 1 day's work = $1 + 2 = 3$ units/day

\therefore Time taken by them together to complete the work = $\frac{24}{3} = 8$ days

Question 65

x and y are two numbers such that their mean proportion is 16 and third proportion is 128. What is the value of x and y ?

- A 8 and 16
- B 16 and 32
- C 8 and 32
- D 16 and 16

Answer: C

Explanation:

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

Mean proportion of two numbers x and $y = 16$

$$\Rightarrow xy = (16)^2 = 256 \text{ -----(i)}$$

Third proportion = 128

$$\Rightarrow y^2 = x \times 128 \text{ -----(ii)}$$

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

$$\Rightarrow y^2 = \frac{256}{y} \times 128$$

$$\Rightarrow y^3 = (2)^8 \times (2)^7 = (2)^{8+7}$$

$$\Rightarrow y = (2)^{\frac{15}{3}} = 2^5 = 32$$

$$\text{Substituting it in equation(i), } \Rightarrow x = \frac{256}{32} = 8$$

Question 66

In the first 32 overs of a cricket match, the run rate was 7.2 runs/over. What is the required run rate in the remaining 18 overs to reach the target of 297 runs?

A 4.3

B 4.9

C 3.1

D 3.7

Answer: D

Explanation:

Run rate in 32 overs = 7.2 runs/over

$$\Rightarrow \text{Runs scored in 32 overs} = 32 \times 7.2 = 230.4$$

$$\text{Runs needed to score in 18 overs} = 297 - 230.4 = 67.4$$

$$\Rightarrow \text{Run rate required} = \frac{67.4}{18} = 3.7$$

\Rightarrow Ans - (D)

Question 67

Chord AB of a circle when extended meets the tangent to the circle at point P. PT is the tangent touching the circle at point T. If lengths of PT and PB are 6 cm and 4 cm respectively, what is the length of PA?

A 12 cm

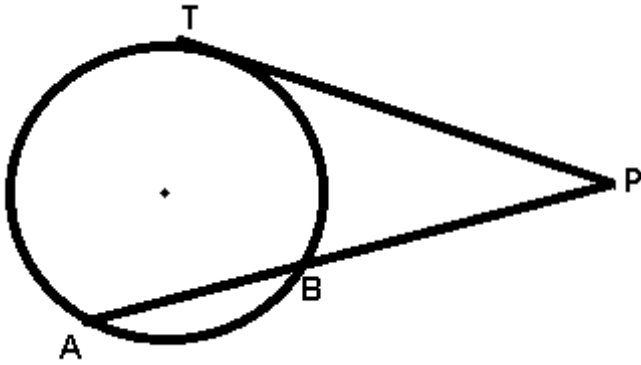
B 18 cm

C 27 cm

D 9 cm

Answer: D

Explanation:



Given : $PT = 6$ cm and $PB = 4$ cm

To find : $PA = ?$

Solution : Using properties of tangents, $(PT)^2 = PA \times PB$

$$\Rightarrow (6)^2 = (PA) \times 4$$

$$\Rightarrow PA = \frac{36}{4} = 9 \text{ cm}$$

\Rightarrow Ans - (D)

Question 68

A student multiplied a number by $\frac{4}{5}$ instead of $\frac{5}{4}$. What is the percentage error in the calculation?

A 56.25 percent

B 18 percent

C 28.13 percent

D 36 percent

Answer: D

Explanation:

Let the number be 100

When the student multiplied it by $\frac{4}{5}$, \Rightarrow original result = $\frac{4}{5} \times 100 = 80$

When the student multiply it by $\frac{5}{4}$, \Rightarrow New result = $\frac{5}{4} \times 100 = 125$

$$\Rightarrow \text{Percentage error in calculation} = \frac{(125-80)}{125} \times 100$$

$$= \frac{45}{5} \times 4 = 36\%$$

=> Ans - (D)

Question 69

Ruchir walks at 20 km/hr and Rukma cycles at 25 km/hr towards each other. What was the distance between them when they started if they meet after 48 minutes?

A 54 km

B 45 km

C 36 km

D 27 km

Answer: C

Explanation:

Speed of Rizvan = 20 km/hr and Ruchitha = 25 km/hr

Since they are moving in opposite direction, => Relative speed = 20 + 25 = 45 km/hr

Let distance between them = d km and time = $\frac{48}{60} = \frac{4}{5}$ hr

=> time = distance/speed

$$\Rightarrow \frac{d}{45} = \frac{4}{5}$$

$$\Rightarrow d = \frac{4}{5} \times 45 = 4 \times 9$$

$$\Rightarrow d = 36 \text{ km}$$

Question 70

A vendor buys chikoos at 15 for Rs 8 and then sells at 10 for Rs 6. What will be the result?

A 12.5 percent loss

B 11.11 percent gain

C 12.5 percent gain

D 11.1 percent loss

Answer: C

Explanation:

The Vendor buys chikoos at 15 for Rs. 8

$$\Rightarrow \text{Cost price of 1 chikoo} = \text{Rs. } \frac{8}{15}$$

The Vendor sells chikoos at 10 for Rs. 6

=> Selling price of 1 chikoo = Rs. $\frac{6}{10}$

=> Total profit = $\frac{6}{10} - \frac{8}{15} = \frac{18-16}{30} = \frac{1}{15}$

∴ Profit % = $\frac{\frac{1}{15}}{\frac{8}{15}} \times 100$

= $\frac{100}{8} = 12.5\%$

Question 71

Point Q(b,-1) is the midpoint of segment EF. Co-ordinates of point E are (-4,a) and point F are (2,0). What is the value of a and b?

A a = 2; b = 1

B a = -2; b = -1

C a = -4; b = -8

D a = 4; b = 8

Answer: B

Explanation:

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

Coordinates of E (-4, a) and F (2, 0)

Q (b, -1) is the mid point of EF

=> $b = \frac{-4+2}{2}$

=> $b = \frac{-2}{2} = -1$

Similarly, $-1 = \frac{a+0}{2}$

=> $a = -1 \times 2 = -2$

=> Ans - (B)

Question 72

Refer the below data table and answer the following question.

	Weight in (kg)	Height (M)
Ali	50	1.52
Alok	59	1.67
Amit	73	1.8
Amol	64	1.72

Who has the least weight to height ratio ?

A Ali

B Alok

C Amit

D Amol

Answer: A

Explanation:

Ratio of weight to height

$$\text{Ali} : \frac{50}{1.52} = 32.9 \quad \text{[LEAST]}$$

$$\text{Alok} : \frac{59}{1.67} = 35.3$$

$$\text{Amit} : \frac{73}{1.8} = 40.5$$

$$\text{Amol} : \frac{64}{1.72} = 37.2$$

=> Ans - (A)

Question 73

Refer the below data table and answer the following question.

Year	Company's % profit
2011	20
2012	15
2013	25
2014	5
2015	10

What was the revenue of the company if its expenditure was Rs. 675 crore in the year when its % profit was the least ?

A 742.5

B 776.25

C 675

D 708.75

Answer: D

Explanation:

Profit % was least in 2014 = 5%

Let revenue = Rs. x crore and expenditure = Rs. 675 crore

$$\Rightarrow \text{Profit \%} = \frac{x-675}{675} \times 100 = 5$$

$$\Rightarrow \frac{x-675}{675} = \frac{5}{100} = \frac{1}{20}$$

$$\Rightarrow 20x - 13500 = 675$$

$$\Rightarrow 20x = 675 + 13500 = 14175$$

$$\Rightarrow x = \frac{14175}{20} = 708.75 \text{ crore}$$

Question 74

The following table shows the number of children in each house of the society

No of Children	No of houses
0	6
1	16
2	15
3	3

What is the average number of children per house?

A 1.38

B 1.63

C 1.88

D 1.13

Answer: A

Explanation:

Total number of houses = $6 + 16 + 15 + 3 = 40$

Total children = $(0 \times 6) + (1 \times 16) + (2 \times 15) + (3 \times 3)$

= $16 + 30 + 9 = 55$

\therefore Average number of children per house = $\frac{55}{40} = 1.38$

\Rightarrow Ans - (A)

Question 75

Refer the below data table and answer the following question.

Partners	Present % share
Anand	5
Basu	5
Chinmay	15
Dhiraj	20
Ejaz	55

If the company has issued six lakh shares between its five partners and If Anand offers to sell 15000 of his shares to Ejaz, then Ejaz will have how many shares?

A 360000 shares

B 330000 shares

C 345000 shares

D 315000 shares

Answer: C

Explanation:

Total shares = Rs. 6,00,000

$$\text{Original shares with Ejaz} = \frac{55}{100} \times 600000 = 3,30,000$$

If Anand offers to sell 15000 of his shares to Ejaz,

$$\Rightarrow \text{Shares with Ejaz} = 3,30,000 + 15,000 = 3,45,000$$

\Rightarrow Ans - (C)

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'.

Their luggages which were(A)/kept at the station's(B)/ restroom's lockers, were later retrieved.(C)/No error(D)

A A

B B

C C

D D

Answer: A

Question 77

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 warning bellsseveral times before anyone realized the danger.

A were ringing

B had rung

C had rang

D would have rung

Answer: B

Question 78

Select the antonym of sacred

A pious

B hallowed

C divine

D profane

Answer: D

Question 79

In the following question, out of the four alternatives, select the alternative which is the best substitute of the phrase.

Rub a part of the body to restore warmth or sensation.

A Fuzz

B Chafe

C Scum

D Oblique

Answer: B

Question 80

Improve the bracketed part of the sentence. Human beings are social animals, (who are living in communities), regulated by social norms and laws.

A living in communities

B living amongst a community

C living in midst of communities

D no improvement

Answer: A

Question 81

Select the synonym of astonish

- A** mundane
- B** empress
- C** overwhelm
- D** calm

Answer: C

Question 82

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.

I never go shopping on weekends as on those days the malls areof people.

- A** full
- B** busy
- C** crowded
- D** packed

Answer: A

Question 83

Rearrange the parts of the sentence in correct order.

Williamson shoveled scorn on

P-the low-income white Republican voters who, Q-were most responsible for the rise of Trump

R-as he saw it,

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

Answer: A

Question 84

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'.

That summer, elections were(A)/held at many a place(B)/without any untoward incident.(C)/No error

A A

B B

C C

D D

Answer: B

Question 85

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.

Sahil said, "Where will I be this time next year!"

A Sahil asked where he should be that time the following year.

B Sahil worried where he would be that time the next year.

C Sahil wondered where he would be that time the following year.

D Sahil said where he would be that time the next year.

Answer: C

Question 86

Improve the bracketed part of the sentence. Virat bats very well, (didn't he)?

A isn't it

B doesn't he

C wasn't it

D no improvement

Answer: B

Question 87

In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the idiom/phrase. Add fuel to the fire

- A Go from one bad situation to another
- B A cause becomes better when more people join
- C The flame will extinguish if it runs out of oil
- D Cause a situation to become worse

Answer: D

Question 88

Select the antonym of outlandish

- A droll
- B kinky
- C common
- D grotesque

Answer: C

Question 89

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.

The Marathas surrendered their fort to the Mughals after the war.

- A After the war the Marathas had to surrender their fort to the Mughals.
- B The Mughals after the war took the fort surrendered by the Marathas.
- C Their fort was surrendered by the Marathas to the Mughals after the war.
- D The Marathas after the war surrendered their fort to the Mughals.

Answer: C

Question 90

Select the word with the correct spelling.

- A feminism
- B access
- C permuted
- D vacuols

Answer: C

Question 91

Rearrange the parts of the sentence in correct order.

Amartya Sen lays claim

P-to a history of writing

Q-some of the finest research papers

R-that have been published

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

Answer: B

Question 92

Select the word with the correct spelling.

- A arobics
- B chosers
- C bated
- D eternity

Answer: D

Question 93

In the following question, out of the four alternatives, select the alternative which is the best substitute of the phrase.

The punishment of being kept in school after hours.

- A Pretension
- B Isolate
- C Detention
- D Blender

Answer: C

Question 94

In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the idiom/phrase. A slap on the wrist

- A A mild punishment
- B Punishing the wrong person
- C To hit someone where it hurts the most
- D To threaten someone

Answer: A

Question 95

Select the synonym of gaudy

- A modest
- B showy
- C refined
- D sophisticated

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.

Did you think that colouring books were aof your childhood? Here's something that will come as a surprise. Colouring books for adults have been steadily gaining popularity since last year. While some focus onand floral designs, others have patternsby nature, animals and even angels. The most popular books are those which feature mandalas. Mandalas refer to sacred circles in Sanskrit, which

have qualities. Deeply
....., mandalas have a rich history and are even associated with healing. Several studies say that mandalas increase self-awareness, improve concentration and promote harmony. Colour therapists reckon that different colours have different qualities and therefore, have different effects on the human mind. Did you think that colouring books were aof your childhood?

Question 96

Did you think that colouring books were aof your childhood?

- A blast from the past
- B remnant
- C fond memory
- D activity

Answer: C

Question 97

While some focus onand floral designs,

- A deep
- B philosophical
- C ideal
- D abstract

Answer: D

Question 98

others have patternsby nature, animals and even angels.

- A inspired
- B roused
- C excited
- D encouraged

Answer: A

Question 99

which havequalities.

- A prayerful
- B pensive
- C thoughtful
- D meditative

Answer: D

Question 100

Deeply, mandalas have a rich history

- A sacred
- B holy
- C spiritual
- D religiously

Answer: C