SSC CHSL 20 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.
Traditional : Modern : : Sharp : ?

A Difficult

B Plain

C Tough

D Blunt

Answer: D

Explanation:

Expression = Traditional : Modern : : Sharp : ?

Traditional and modern are antonyms, similarly opposite of sharp is *blunt*.

=> Ans - (D)

Question 2

Select the related word/letters/number from the given alternatives.
XYZ : CBA : : QRS : ?

A HIJ

B JIH

C JKL

D LKJ

Answer: B

Explanation:
Expression = XYZ : CBA : : QRS : ?

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

ABCDEFGHIJKLMNOPQRSTUVWXYZ
↓↓ ...   ... ↓
ZYXWVUTSRQPONMLKJIHGFEDCBA

Similarly, QRS : **JIH**

=> Ans - (B)

Question 3

Select the related word/letters/number from the given alternatives.
JKL : LKJ : : YZA : ?

A AZY

B XZY

C CBA

D JKL

Answer: A

Explanation:
Expression = JKL : LKJ : : YZA : ?

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

Similarly, reverse of YZA : **AZY**

=> Ans - (A)

Question 4

Select the related word/letters/number from the given alternatives.
37 : 21 : : 29 : ?

A 17

B 28

C 18

D 19

Answer: C

Explanation:
Expression = 37 : 21 : : 29 : ?

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

Eg :- $3 \times 7 = 21$

Similarly, $2 \times 9 = 18$

=> Ans - (C)

Question 5

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

A   Serious

B   Severe

C   Harsh

D   Deceptive

   Answer: D

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

=> Ans - (D)

Question 6

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

A   RQP

B   KJI

C   FED

D   GHI

   Answer: D

Explanation:
Except for GHI, other letters are written in inverse order according to English alphabetical order, hence GHI is the odd one out.

=> Ans - (D)

Question 7

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

A   EV

B   KP

C IR

D FT

Answer: D

Explanation:
Except FT other three are pair of corresponding opposite word, hence it is the odd one out.

```
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
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=> Ans - (D)

Question 8

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

A 8512

B 5125

C 6216

D 7345

Answer: D

Explanation:
$8^3 = 512$

$5^3 = 125$

$6^3 = 216$

But, $7^3 = 343 \neq 345$

=> 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. Arctic Ocean, Southern Ocean (Antarctic ocean), Indian Ocean, ?

A Atlantic Ocean

B Pacific Ocean

C South Pacific Ocean

D North Pacific Ocean

Answer: A

Explanation:
Oceans is increasing order according to size are given.

= Arctic Ocean -> Antarctic ocean -> Indian Ocean -> Atlantic Ocean

=> 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.
DFI, JNS, TZG, ?

A HPV

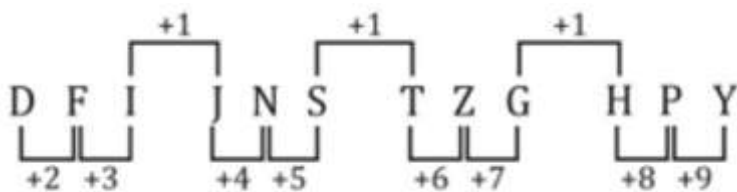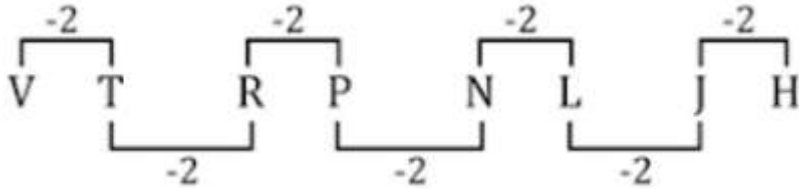**B** HPY

C HPX

D IPV

Answer: B

Explanation:
Expression : DFI, JNS, TZG, ?

The pattern followed is :

Thus, missing term = **HPY**

=> 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.
VT, RP, NL, ?

A HJ

B KL

C IJ

D JH

    Answer: D

Explanation:

Expression : VT, RP, NL, ?

The pattern followed is :

Thus, missing term = **JH**

=> 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.
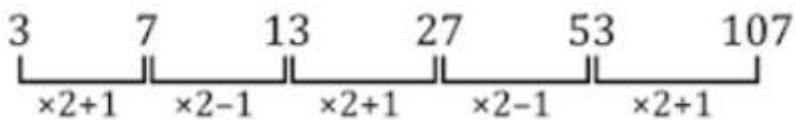**3, 7, 13, 27, 53, ?**

A 105

B 106

C 107

D 103

    Answer: C

Explanation:

The pattern followed is :

Thus, missing term = **107**

=> Ans - (C)

Question 13

In the following question, two statements are given each followed by two conclusions I and II. You have to consider the statements to be true even if they seem to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follows from the given statements.
Statements:
(I) All pilots are brave men.
(II) All astronauts are pilots.
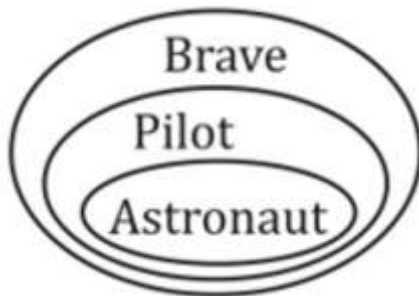Conclusion:
(I) All astronauts are brave men.
(II) Some pilots are astronauts.

A   Conclusion I follows

B   Conclusion II follows

C   Neither I nor II follows

D   Both I and II follows

   Answer: D

Explanation:
The venn diagram for above statements is :

Conclusion:

(I) All astronauts are brave men = true
(II) Some pilots are astronauts = true

Thus, both I and II follows

=> Ans - (D)

Question 14

Ravish is 7 years older than Vikas. Akash is 3 years younger than Ravish. Mohit is 5 years younger than Akash. Who is the youngest among all the four?

A   Vikas

B Ravish

C Mohit

D Akash

Answer: C

Explanation:
Let Vikas's age = x years

=> Ravish's age = $(x + 7)$ years

=> Akash's age = $(x + 7) - 3 = (x + 4)$ years

∴ Mohit's age = $(x + 4) - 5 = (x - 1)$ years

Thus, **Mohit** is the youngest among all the four.

=> Ans - (C)

Question 15

Arrange the given words in the sequence in which they occur in the dictionary.
i. Opposite
ii. Optimist
iii. Orthodox
iv. Operation

A iii, i, ii, iv

B iv, i, ii, iii

C ii, i, iii, iv

D iv, iii, ii, i

Answer: B

Explanation:
As per the order of dictionary :

= Operation -> Opposite -> Optimist -> Orthodox

≡ iv, i, ii, iii

=> Ans - (B)

Question 16

In a certain code language, "SCENE" is written as "TBFMF". How is "TRAIN" written in that code language?

A UQBHO

B OHBQU

C UQCHO

D HOBQU

   Answer: A

Explanation:
"SCENE" is written as "TBFMF"

The pattern followed is :

Similarly, for TRAIN :

=> Ans - (A)

Question 17

Find the missing number in the given series in the table?

3	4	12
5	6	30
8	?	72

A 9

B 10

C 12

D 18

   Answer: A

Explanation:
In each row, the number at the end is obtained by multiplying other two.

Eg :- $3 \times 4 = 12$ and $5 \times 6 = 30$

Similarly, $8 \times x = 72$

=> $x = \frac{72}{8} = 9$

=> Ans - (A)

Question 18

If "S" denotes "multiplied by", "V" denotes "subtracted from", "M" denotes "added to" and "L" denotes "divided by", then
7 V 13 M 35 L 7 S 6 = ?

A 23

B 21

C 28

D 24

Answer: D

Explanation:
Expression : 7 V 13 M 35 L 7 S 6 = ?

$\equiv 7 - 13 + 35 \div 7 \times 6$

= $-6 + (5 \times 6)$

= $-6 + 30 = 24$

=> Ans - (D)

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?
p_rrq_p_rr_p

A qqqp

B qpqq

C pqqr

D rppq

Answer: B

Explanation:
The pattern followed is that in groups of 3, the term 'pqr' is alternatively repeated in this and reverse order.
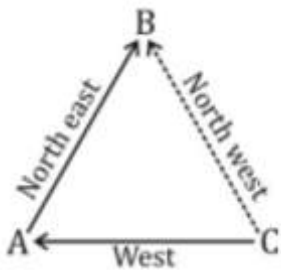
= p**q**r rq**p** p**q**r r**q**p

=> Ans - (B)

Question 20

A is to the west of C. B is to the north-east of A and is equidistant from A and C. In which direction is B with respect to C?

A   North-east

B   North-west

C   East

D   South-west

Answer: B

Explanation:

A is to the west of C. B is to the north-east of A and is equidistant from A and C.

Thus, B is to the North-west of C.

=> Ans - (B)

Question 21

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-Hare numbered from 5 to 9. A letter from these matrices can be represented first by its row and next by its column, for example, 'N' can be represented by 34, 43, etc., and 'FE can be represented by 56, 67, etc. Similarly, you have to Identify the set for the word 'FLUTE'.

MATRIX 1

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

MATRIX 2

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

A   22, 77, 13, 88, 21

B   44, 88, 40, 58, 20

C   11, 86, 31, 89, 24

D   33, 95, 04, 67, 23

Answer: A

Explanation:
(A) : 22, 77, 13, 88, 21 = **FLUTE**

(B) : 44, 88, 40, 58, 20 = FTUME

(C) : 11, 86, 31, 89, 24 = FLUHE

(D) : 33, 95, 04, 67, 23 = FLUHE

=> Ans - (D)

Question 22

Nikhil is father in law of Tara. Tara is the wife of Rahul. How is Rahul's brother related to Nikhil?
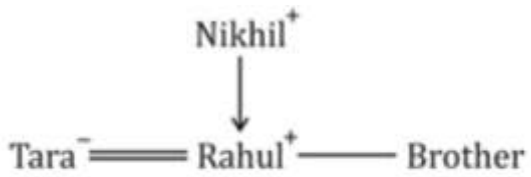
A   Brother

B Father

C Son

D Father-in-law

Answer: C

Explanation:

Nikhil is father in law of Tara. Tara is the wife of Rahul, => Nikhil is the father of Rahul.

Relation is :

$$Nikhil^+$$
$$\downarrow$$
$$Tara^- === Rahul^+ —— Brother$$

Thus, Rahul's brother is son of Nikhil.

=> 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?
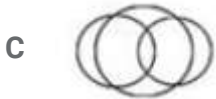

A

B

C

D

Answer: A

Question 24

Identify the diagram that best represents the relationship among the given classes.
Stationery, Pencil, Rubber
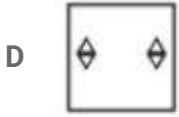
A

B

C

D

Answer: 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.

A

B

C

D

Answer: A

General Awareness

Instructions

For the following questions answer them individually

Question 26

Which world heritage site comprises of the tomb of Iltumish?

A   Humayun's Tomb

B   Mahabodhi Temple Complex

C   Qutub Minar

D   Red Fort Complex

Answer: C

Question 27

Highest Civilian Honour received by Mary Kom is

A   Padma Shri

B   Padma Bhushan

C   Padma Vibhushan

D   Bharat Ratna

Answer: B

Question 28

Which drug is used for Pain Relief?

A   Risedronate

B Tramadol

C Folic Acid

D Bupropion

Answer: B

Question 29

Sugarcane is a type of ....

A creeper

B tree

C shrub

D grass

Answer: D

Question 30

Who is commonly known as "the Father of Microbiology"?

A Robert Hooke

B Antonie Philips van Leeuwenhoek

C Carl Linnaeus

D Charles Darwin

Answer: B

Question 31

Which of the following is a Synthetic rubber?

A Leoprene

B Monoprene

C Neoprene

D Isoprene

Answer: C

Question 32

NaCl has ___

A   nonpolar bonds

B   polar covalent bonds

C   Metallic bonds

D   ionic bonds

Answer: D

Question 33

Which of the following is equivalent to 1 Kilobyte?

A   128 Bytes

B   256 Bytes

C   512 Bytes

D   1024 Bytes

Answer: D

Question 34

Marathi is the official language of ....

A   Chandigarh

B   Dadra and Nagar Haveli

C   Daman and Diu

D   Delhi

Answer: B

Question 35

If demand curve for racing cycles is D = 59600 - 6P and supply curve is S = 29600 + 4P, find the equilibrium Quantity?

A   118000

B   300

C   41600

D   6000

   Answer: C

Question 36

Which of the following statements is incorrect, if resources were unlimited?

A   there would still be scarcity and opportunity costs

B   there would still be scarcity but no opportunity costs

C   there would be no scarcity, but there would be opportunity costs.

D   there would neither be scarcity nor opportunity costs

   Answer: C

Question 37

For the aquatic organisms, the source of food is

A   Phytoplankton

B   Sea Weed

C   Aqua plankton

D   Zooplankton

   Answer: A

Question 38

Haemoglobin has the highest affinity with which of the following?

A   SO2

B   CO2

C   CO

D NO2

   Answer: C

Question 39

The Lena river passes through which country?

A China

B USA

C Russia

D Brazil

   Answer: C

Question 40

Mars is the ....planet from the Sun.

A 2nd

B 4th

C 6th

D 8th

   Answer: B

Question 41

Which city is located on the banks of the river Alaknanda?

A Badrinath

B Ayodhya

C Allahabad

D Lucknow

   Answer: A

Question 42

Kalinga War was fought in the year ....

A   1604 BC

B   261 BC

C   731 AD

D   1113 AD

Answer: B

Question 43

The League of Nations was formed at the end of which war?

A   World War I

B   World War II

C   Gulf War I

D   Gulf War II

Answer: A

Question 44

Who developed the theory of Evolution?

A   Charles Darwin

B   Isaac Newton

C   Pranav Mistry

D   Galileo Galilei

Answer: A

Question 45

Which among the following is not a unit of distance?

A Light year

B Longsec

C Astronomical unit

D Parsec

Answer: B

Question 46

The apparent weight of a person in a lift which is moving down with uniform acceleration is ....

A greater than the weight when the person is stationary

B twice the weight when the person is stationary

C less than the weight when the person is stationary

D same as the weight when the person is stationary

Answer: C

Question 47

The form of power structure in which power effectively rests with a faction of persons or families is called

A Tyranny

B Fascism

C Oligarchy

D Plutocracy

Answer: C

Question 48

The number of parliamentary seats (Lok Sabha) of Haryana is

A 10

B 26

C 28

D 48

Answer: A

Question 49

Jeev Milkha Singh is associated with which game?

A Polo

B Badminton

C Golf

D Tennis

Answer: C

Question 50

Name the author of the book "Pakistan the Gathering Storm".

A Parvez Musharraf

B Benazir Bhutto

C Chetan Bhagat

D Javier Moro

Answer: B

English

Instructions
For the following questions answer them individually

Question 51

Select the synonym of:
to entrain

A to alight

B to debark

C to mount

D to disembark

Answer: C

Question 52

Select the word with the correct spelling.

A virtuous

B tabbulate

C infinete

D feytishes

Answer: A

Question 53

In the following question, some part of the sentence may have errors. Find out which part of the sentence has an error and select the appropriate option. If a sentence is free from error, select 'No Error'.
Gita had been(A)/dancing at the party little(B)/more than usual.(C)/No error(D)

A A

B B

C C

D D

Answer: B

Question 54

Select the antonym of
vivified

A invigorated

B revived

C dull

D animated

Answer: C

Question 55

In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the idiom/phrase.
Beauty is in the eye of the beholder

A   The world is beautiful if one can see it that way

B   To see only beautiful things if one wants to make his life beautiful

C   That which one person finds beautiful or admirable may not appeal to another

D   For an infatuated person even bad qualities of the beloved appear good

   Answer: C

Question 56

Rearrange the parts of the sentence in correct order.
Earlier its forays
P-were concentrated on ancient
Q-and medieval India
R-in history

A   RPQ

B   RQP

C   PQR

D   QPR

   Answer: A

Question 57

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

A   Apologise

B   Communicate

C   Confess

D Inform

Answer: C

Question 58

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 painters painted the entire building.

A The entire building had been painted by the painters.

B The painters had an entire building painted.

C The entire building was painted by the painters.

D The entire building has been painted by the painters.

Answer: C

Question 59

Improve the bracketed part of the sentence
His condition has only deteriorated, his life (hangs with threads).

A is hanging on threads

B hangs by a thread

C hangs on a thread

D no improvement

Answer: B

Question 60

Rearrange the parts of the sentence in correct order:
Guardians of
P-the tyranny of the state
Q-four square against
R-intellectual liberty must stand

A QRP

B RQP

C PRQ

D PQR

    Answer: B

Question 61

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.
Mother said, "Oh! It's a scorpion. Don't go near it, children."

A Mother exclaimed with disgust that, that was a scorpion and told the children not to go near it.

B Mother exclaimed disgustingly that, it was a scorpion and told the children not to go near it.

C Mother exclaimed with disgust that it was a scorpion and told the children not to go near it.

D Mother exclaimed with disgust that, that was a scorpion and told the children not to go near that.

    Answer: C

Question 62

In the following question, out of the four alternatives, select the alternative which is the best substitute of the phrase.
to have as belonging to one; own.

A to dominate

B to possess

C to abandon

D to hog

    Answer: B

Question 63

Select the word with the correct spelling.

A panacease

B saboteur

C contraste

D columunar

Question 64

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

A solution to a problem is easy if one is sufficiently desperate

B great inventions happen only if you are desperate

C there is always a mother behind every great scientist who has invented something

D when the need for something becomes essential, you are forced to find ways of getting it

Answer: D

Question 65

In the following question, out of the four alternatives, select the alternative which is the best substitute of the phrase.
the action of making amends for a wrong one has done

A reparation

B extortion

C reclamation

D retrieval

Answer: A

Question 66

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 payment of dues have been ....delayed , informed the executive to the client.

A incredibly

B crazily

C amazingly

D unduly

Answer: D

Question 67

Select the synonym of discerning

A naive

B asinine

C inept

D astute

Answer: D

Question 68

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'.
Ramesh is far arrogant(A)/to learn the error(B)/of his ways.(C)/No error(D).

A A

B B

C C

D D

Answer: A

Question 69

Improve the bracketed part of the sentence.
We are late because my wife took two hours to (put up) her make-up.

A put on

B put

C put over

D no improvement

Answer: A

Question 70

Select the antonym of
wary

A frugal

B leery

C prudent

D inattentive

Answer: D

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.
India has already made ....concessions to enable a consensus and successful outcome at Paris. Now it must ensure that it is not caught in a relentless ....process where each concession becomes an argument for making the next one. The post-Paris negotiations will determine more............the shape of the climate change architecture for the next several decades. We ....ensure that India's vital interests are safeguarded and the principle ....equity and equitable burden-sharing is reflected across this architecture.

Question 71

India has already made ....concessions to enable a consensus

A so much

B substantial

C many

D a lot of

Answer: B

Question 72

Now it must ensure that it is not caught in a relentless ....process

A lengthy

B protracted

C infinite

D attrition

    Answer: D

Question 73

The post-Paris negotiations will determine more ....the shape of the climate change

A precisely

B exactly

C refinely

D sophisticatedly

    Answer: A

Question 74

We ....ensure that India's vital interests are safeguarded

A would

B could

C must

D have

    Answer: C

Question 75

the principle ....equity

A for

B of

C about

D like

Mathematics

Instructions

For the following questions answer them individually

Question 76

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

A (-2,-2)

B (-2,2)

C (2,2)

D (2,-2)

Answer: C

Explanation:

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

Let coordinates of centroid G = (x, y)

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

=> $x = \frac{-2 + 3 + 5}{3}$

=> $x = \frac{6}{3} = 2$

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

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

∴ Coordinates of centroid G = (2,2)

=> Ans - (C)

Question 77

Ravindra walks at 6 km/hr and Riya cycles at 11 km/hr towards each other. What was the distance between them when they started if they meet after 42 minutes?

A 17.9 kms

B 14.9 kms

C 8.9 kms

D 11.9 kms

Answer: D

Explanation:
Speed of Ravindra = 6 km/hr and Riya = 11 km/hr

Since they are moving in opposite direction, => Relative speed = 6 + 11 = 17 km/hr

Let distance between them = d km and time = $\frac{42}{60}$ hr

=> time = distance/speed

=> $\frac{d}{17} = \frac{42}{60}$

=> $d = \frac{42}{60} \times 17 = \frac{7 \times 17}{10}$

=> $d = \frac{119}{10} = 11.9$ km

=> Ans - (D)

Question 78

If cot 135° = x, then the value of x is

A -1/√3

B -√3

C -1

D -1/2

Answer: C

Explanation:
Expression : cot 135° = x

$= cot(180 - 45)$

$= -cot(45)$

$= -1$

=> Ans - (C)

Question 79

The slopes of two lines are 1/√3 and √3. What is the angle between these two lines?

A 15°

B 45°

C 60°

D 30°

Answer: D

Explanation:
Slope of the two lines, $m_1 = \frac{1}{\sqrt{3}}$ and $m_2 = \sqrt{3}$

Let angle between them = θ

Then, $tan(\theta) = \left| \frac{m_2 - m_1}{1 + m_1 m_2} \right|$

=> $tan(\theta) = \frac{\sqrt{3} - \frac{1}{\sqrt{3}}}{1 + \sqrt{3}\frac{1}{\sqrt{3}}}$

=> $tan(\theta) = \frac{tan(60) - tan(30)}{1 + tan(60)tan(30)}$

=> $tan(\theta) = tan(60 - 30)$ $\because \left[tan(A - B) = \frac{tanA - tanB}{1 + tanAtanB} \right]$

=> $\theta = 30°$

=> Ans - (D)

Question 80

If $\sqrt{(1 - cos^2 A)}/cosA$ = x, then the value of x is

A cotA

B cosecA

C tanA

D secA

Answer: C

Explanation:
Expression : $\frac{\sqrt{1 - cos^2 A}}{cosA}$

$\because (sin^2 A + cos^2 A = 1)$

= $\frac{\sqrt{sin^2 A}}{cosA}$

= $\frac{sinA}{cosA} = tanA$

=> Ans - (C)

Question 81

If x + 2(3-5x) > -1 - 2x < 5 - x/3; then the value of x is

A -3

B -4

C 2

D 3

    Answer: A

Explanation:

Expression 1 : x + 2(3-5x) > -1 - 2x

=> $x + 6 - 10x$ > $-1 - 2x$

=> $9x - 2x$ < $6 + 1$

=> $7x$ < 7

=> x < 1 ----------(i)

Expression 2 : -1 - 2x < 5 - x/3

=> $2x - \frac{x}{3}$ > $-1 - 5$

=> $\frac{5x}{3}$ > -6

=> x > $\frac{-18}{5}$ ---------(ii)

Combining inequalities (i) and (ii), we get : $\frac{-18}{5}$ < x < 1

The only value that x can take among the options = -3

=> Ans - (A)

Question 82

An angle is four times its complementary angle. What is the measure of the angle?

A 72°

B 108°

C 54°

D 36°

    Answer: A

Explanation:

Let the angle = θ

Its complementary angle = (4θ)

Sum of an angle and its complementary angle = 90°

=> $\theta + (4\theta) = 90°$

=> $5\theta = 90°$

=> $\theta = \frac{90}{5} = 18°$

$\therefore$ Measure of the angle = $4 \times 18 = 72°$

=> Ans - (A)

Question 83

In a Kite ....

A   One diagonal bisects the other

B   Both diagonals form two congruent triangles

C   Adjacent angles are supplementary

D   Opposite sides are parallel

   Answer: A

Explanation:

In a kite, only 1 diagonal form two congruent triangles and one diagonal bisect the other at right angle.

=> Ans - (A)

Question 84

Akhilesh is two times as good a workman as Bansi and therefore is able to finish a job in 39 days less than Bansi. Working together, they can do it in

A   13 days

B   24 days

C   26 days

D   12 days

   Answer: C

Explanation:

Ratio of times taken by Akhilesh and Bansi = 1 : 2

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

If difference of time is 1 day, Bansi takes 2 days.

If difference of time is 39 days, Bansi takes = $\frac{2}{1} \times 39 = 78$ days

So, Akhilesh takes 39 days

Akhilesh's 1 day's work = $\frac{1}{39}$

Bansi's 1 day's work = $\frac{1}{78}$

(Akhilesh + Bansi)'s 1 day's work together = $\frac{1}{39} + \frac{1}{78} = \frac{3}{78} = \frac{1}{26}$

∴ Akhilesh and Bansi together can do the work in = 26 days

=> Ans - (C)

Question 85

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

A 1331

B 1000

C 1728

D 729

   Answer: C

Explanation:
Expression : (4x - 3) = (3x + 8)

=> $4x - 3x = 8 + 3$

=> $x = 11$

∴ $(x + 1)^3 = (11 + 1)^3$

= $(12)^3 = 1728$

=> Ans - (C)

Question 86

A rectangular swimming pool of length 30 m and breadth 15 m has a uniformly sloping floor. It is 1 m in depth on one end of its length and 2 m at the other. How much water is needed to completely fill this pool?

A 1350 cubic mts

B 2025 cubic mts

C 675 cubic mts

D 2700 cubic mts

   Answer: C

Explanation:

The pool is 1 m in depth on one end of its length and 2 m at the other, thus the pool is in the shape of a trapezium whose volume will be equal to the product of area of trapezium and the width.

Length = 30 m and breadth = 15 m

=> Volume = $\left(\frac{1}{2} \times (1 + 2) \times 30\right) \times 15$

= $45 \times 15 = 675\ m^3$

=> Ans - (C)

Question 87

The sum of all prime numbers between 58 and 62 is

A 116

B 114

C 120

D 111

Answer: C

Explanation:
Sum of all prime numbers between 58 and 62

= 59 + 61

= 120

=> Ans - (C)

Question 88

25% discount is offered on an item. By applying a promo code the customer wins 22% cash back. What is the effective discount?

A 41.5 percent

B 50.63 percent

C 47 percent

D 27.5 percent

Answer: A

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

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

= $100x - 25x = Rs.75x$

Selling price after 22 % cashback = $75x - \frac{22}{100} \times 75x$

= $75x - 16.5x = Rs.58.5x$

=> Total discounted amount = $100x - 58.5x = Rs.41.5x$

∴ Effective discount = $\frac{41.5x}{100x} \times 100 = 41.5\%$

=> Ans - (A)

Question 89

39 is 5.2% of?

A   75

B   750

C   1500

D   1875

Answer: B

Explanation:

Let the number be x

=> 5.2% of x = 39

=> $\frac{5.2}{100} \times x = 39$

=> $x = \frac{3900}{5.2} = \frac{300}{0.4}$

=> $x = 750$

=> Ans - (B)

Question 90

A sum fetched a total simple interest of Rs. 8100 at the rate of 6% per year in 9 years. What is the sum?

A   Rs 15000

B   Rs 18000

C   Rs 12000

D   Rs 9000

Answer: A

Explanation:
Let the sum = $Rs.100x$

Rate = 6% under simple interest and time = 9 years

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

=> $\frac{100x \times 6 \times 9}{100} = 8100$

=> $54x = 8100$

=> $x = \frac{8100}{54} = 150$

$\therefore$ Sum = $100 \times 150 = Rs\ 15,000$

=> Ans - (A)

Question 91

If a - b = -6 and $a^2 + b^2$ = 44, then ab is

A -4

B 8

C 4

D -8

Answer: C

Explanation:
Given : $(a - b) = -6$ and $a^2 + b^2 = 44$

Using $(a - b)^2 = a^2 + b^2 - 2ab$

=> $(-6)^2 = 44 - (2 \times ab)$

=> $2ab = 44 - 36 = 8$

=> $ab = \frac{8}{2} = 4$

=> Ans - (C)

Question 92

The first and last terms of an arithmetic progression are 29 and -49. If the sum of the series is -140, then it has how many terms?

A 13

B 14

C 12

D 11

Answer: B

Explanation:

In an arithmetic progression with first term, $a = 29$, last term, $l = -49$

Let number of terms = n

$\therefore$ Sum of A.P. = $\frac{n}{2}(a+l) = -140$

=> $\frac{n}{2}(29 - 49) = -140$

=> $\frac{-20n}{2} = -140$

=> $n = \frac{(-140) \times 2}{-20} = 7 \times 2$

=> $n = 14$

=> Ans - (B)

Question 93

The average weight of Sudesh, Jyothi and Ritu is 89 kg. If the average weight of Sudesh and Jyothi be 98 kg and that of Jyothi and Ritu be 83 kg, then the weight of Jyothi is

A 58

B 56

C 95

D 66

Answer: C

Explanation:

Let respective weights of Sudesh, Jyothi and Ritu is s, j, r kg

Average weight of the three = $\frac{s+j+r}{3} = 89$

=> $s + j + r = 89 \times 3 = 267$ kg ------------(i)

Similarly, Total weight of Sudesh and Jyothi = $s + j = 98 \times 2 = 196$ kg -------------(ii)

Total weight of Jyothi and Ritu = $j + r = 83 \times 2 = 166$ kg ------------(iii)

Adding equations(ii) and (iii), => $s + 2j + r = 196 + 166 = 362$ -------------(iv)

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

=> $j = 362 - 267 = 95$ kg

=> Ans - (C)

Question 94

By increasing the price of entry ticket to a fair in the ratio 7:17, the number of visitors to the fair has decreased in the ratio 9:5. In what ratio has the total collection increased or decreased?

A decreased in the ratio 85:63

B   increased in the ratio 35:153

C   increased in the ratio 63:85

D   decreased in the ratio 153:35

   Answer: C

Explanation:
Let cost of original ticket = Rs 7 and and number of visitors = 90

=> Original revenue = 7 × 90 = Rs 630

After increase in cost of ticket

New cost of ticket = Rs 17 and number of visitors = 50

=> New Revenue = 17 × 50 = Rs 850

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

∴ Increase of total collection ratio = $\frac{630}{850}$ = 63 : 85

=> Ans - (C)

Question 95

What is the value of √[(1 - sinA)/(1 + sinA)]?

A   cosA/(1 - sinA)

B   cosecA/(1 + sinA)

C   cosA/(1 + sinA)

D   cosecA/(1 - sinA)

   Answer: C

Explanation:
Expression : $\sqrt{\left[\frac{(1-sinA)}{(1+sinA)}\right]}$

Multiplying both numerator and denominator by $\left(\sqrt{1+sinA}\right)$

= $\sqrt{\left[\frac{(1-sinA)}{(1+sinA)}\right]} \times \sqrt{\frac{(1+sinA)}{(1+sinA)}}$

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

= $\frac{cosA}{1+sinA}$

=> Ans - (C)

Question 96

Raghuram sells a machine for Rs 43 lakhs at a loss. Had he sold it for Rs 53 lakh, his gain would have been 7 times the former loss. Find the cost price of the machine.

A Rs 51.75 lakhs

B Rs 59.14 lakhs

C Rs 36.75 lakhs

D Rs 44.25 lakhs

Answer: D

Explanation:

Let cost price of the machine = Rs. x lakhs

When selling price = Rs. 43 lakhs

=> Loss = Rs. $(x - 43)$ lakhs

If selling price = Rs. 53 lakhs

=> Profit = Rs. $(53 - x)$ lakhs

According to ques, Profit = 7 $\times$ loss

=> $(53 - x) = 7 \times (x - 43)$

=> $53 - x = 7x - 301$

=> $7x + x = 301 + 53 = 354$

=> $x = \frac{354}{8} =$ Rs. 44.25 lakhs

=> Ans - (D)

Question 97

Read the data and answer the given questions

Division/STD	Boys	Girls
Division A/STD 5	30	30
Division B/STD 5	30	35
Division C/STD 5	25	10
Division A/STD 6	30	10
Division B/STD 6	40	30
Division C/STD 6	20	40

What is the ratio of boys to girls?

A 31 : 35

B 35 : 31

C 37 : 33

D 33 : 37

    Answer: B

Explanation:

Total number of boys = 30 + 30 + 25 + 30 + 40 + 20 = 175

Total number of girls = 30 + 35 + 10 + 10 + 30 + 40 = 155

=> Required ratio = $\frac{175}{155}$

= 35 : 31

=> Ans - (B)

Question 98

Read the data and answer the given question

Marks	No of Students
40 and above	10
30 and above	40
20 and above	69
10 and above	81
0 and above	102

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

A 69

B 40

C 109

D 59

    Answer: D

Explanation:

Number of students who scored :

40 and above = 10

30 and above = 40 - 10 = 30

20 and above = 69 - 40 = 29

10 and above = 81 - 69 = 12

0 and above = 102 - 81 = 21

=> Students who have scored marks 20 or more but less than 40 = 29 + 30 = 59

=> Ans - (D)

Question 99

Read the data and answer the given questions?

Years	GDP growth rate in %
2011	3
2012	-7
2013	-7
2014	4
2015	3

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

A $1.03 trillion

B $1.04 trillion

C $0.93 trillion

D $1.07 trillion

Answer: B

Explanation:

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

=> GDP growth rate in 2014 = 4%

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

$\therefore$ GDP at the beginning of 2015 = $\frac{100+4}{100} \times 1$ trillion

= $\frac{104}{100}$ = $1.04 trillion

=> Ans - (B)

Question 100

Read the data and answer the given questions ?

Subjects	Marks scored
English	45
Hindi	70
Maths	30
Science	80
Arts	35

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

A 37

B 42

C 47

D 52

   Answer: C

Explanation:

Total marks scored by the student = 45 + 70 + 30 + 80 + 35 = 260

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

But due to poor attendance, 5 marks are deducted

$\therefore$ Net average = 52 - 5 = 47

=> Ans - (C)

SSC CHSL 20 Jan 2017 Afternoon Shift

Reasoning

Instructions

For the following questions answer them individually

Question 1

Select the related word/letters/number from the given alternatives.
Jammu and Kashmir : North : : Tamil Nadu : ?

A South

B East

C West

D North-east

   Answer: A

Explanation:

Expression : Jammu and Kashmir : North : : Tamil Nadu : ?

Jammu and Kashmir is in the North of India, similarly Tamil Nadu is in the south.

=> Ans - (A)

Question 2

Select the related word/letters/number from the given alternatives.
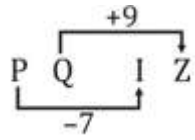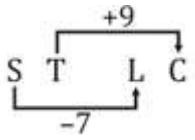ST : LC : : PQ : ?

A IY

B IZ

C JZ

D JY

   Answer: B

Explanation:

Expression = ST : LC : : PQ : ?

The pattern followed is :

Thus, PQ : **IZ**

=> Ans - (B)

Question 3

Select the related word/letters/number from the given alternatives.
TC : NF : : QM : ?

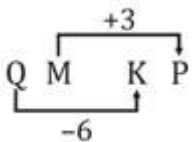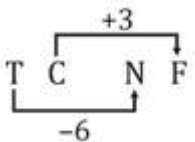**A** JY

B IY

C HY

D KP

Answer: D

Explanation:
Expression = TC : NF : : QM : ?

The pattern followed is :

Thus, QM : **KP**

=> Ans - (D)

Question 4

Select the related word/letters/number from the given alternatives.
9 : 82 : : 11 : ?

A 121

B 122

C 120

D 125

Answer: B

Explanation:
Expression = 9 : 82 : : 11 : ?

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

Eg :- $9 : 9^2 + 1 = 9 : 82$

Similarly, $(11)^2 + 1 = 121 + 1 = 122$

=> Ans - (B)

Question 5

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

A Nokia

B Whirlpool

C Apple

D Micromax

Answer: B

Explanation:
Except Whirlpool other three are mobile manufacturing companies, hence it is the odd one out.

=> Ans - (B)

Question 6

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

A OP

B UI

C TA

D SE

Answer: B

Explanation:
Only in UI, both letters are vowels, hence it is the odd one out.

=> Ans - (B)

Question 7

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

A 636

B 253

C 396

D 473

 Answer: A

Explanation:
Middle digit is sum of 1st and 3rd digit, but $6 + 6 \neq 12$, hence 636 is the odd one out.

=> Ans - (A)

Question 8

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

A 93

B 89

C 79

D 81

 Answer: D

Explanation:
Only $81 = 9^2$ is a perfect square, hence it is the odd one out.

=> Ans - (D)

Question 9

A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series.
Sowing, Irrigation, Hoeing, ?

A Harvesting

B Crop selection

C Land preparation

D Seed selection

 Answer: A

Explanation:
Steps in crop production are given.

= Sowing -> Irrigation -> Hoeing -> Harvesting

=> 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.
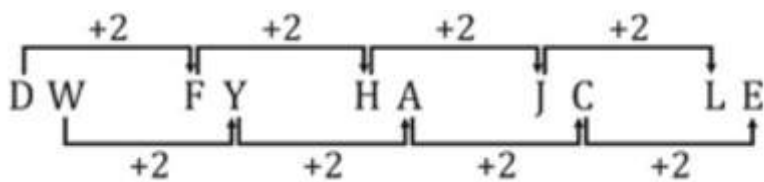**DW, FY, HA, JC, ?**

A LD

B LE

C ME

D MD

Answer: B

Explanation:
Expression : DW, FY, HA, JC, ?

The pattern followed is :

Thus, missing term = **LE**

=> 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.
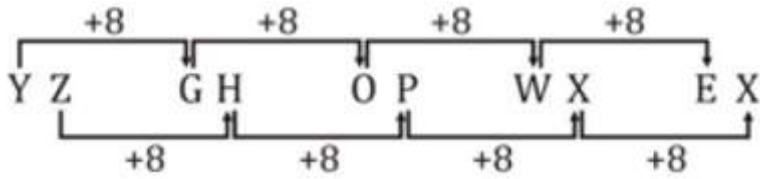**YZ, GH, OP, WX, ?**

A DN

B GH

C EF

D DE

Answer: C

Explanation:

Expression : YZ, GH, OP, WX, ?

The pattern followed is :

Thus, missing term = **EF**

=> Ans - (C)

Question 12

A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series.
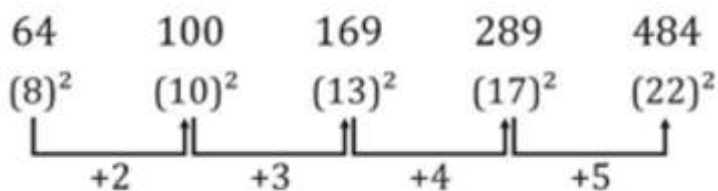**64, 100, 169, 289, ?**

A 484

B 444

C 404

D 468

Answer: A

Explanation:
The pattern followed is :

Thus, missing number = **484**

=> Ans - (A)

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) The average age of working people in New Zealand is 58.
(II) Death rate in New Zealand is very low as the climatic conditions are sound.
Conclusion:
(I) In New Zealand youth is required in workforce as well as in education.
(II) There are more job opportunities available in New Zealand.

A Only conclusion II follows

B Conclusion I and II both follow

C Neither I nor II follow

D Only conclusion I follows

Answer: D

Question 14

The sum of the ages of Ram and Shyam is 49. The difference between the age of Shyam and twice the age of Ram is 8.
What is the age (in years) of Ram?

A 30

B 20

C 19

D 29

Answer: C

Explanation:
Let Ram's age = x years

=> Shyam's age = $(49 - x)$ years

According to ques, => $2x - (49 - x) = 8$

=> $2x + x = 8 + 49$

=> $3x = 57$

=> $x = \frac{57}{3} = 19$

Thus, Ram's age is 19 years.

=> Ans - (C)

Question 15

Arrange the given words in the sequence in which they occur in the dictionary.
i. Dominant
ii. Dormant
iii. Docile
iv. Document

A iii, iv, i, ii

B iv, i, iii, ii

C i, iii, ii, iv

D i, ii, iii, iv

Answer: A

Explanation:

As per the order of dictionary :

= Docile -> Document -> Dominant -> Dormant

≡ iii, iv, i, ii

=> Ans - (A)

Question 16

In a certain code language, "DESIRE" is written as "EGVMWK". How is "RECESS" written in that code language?

A SGXFIY

B SFGIXY

C SGFIXY

D SGFIXX

Answer: C

Explanation:

"DESIRE" is written as "EGVMWK"

The pattern followed is :

Similarly, for RECESS :

=> Ans - (C)

Question 17

Find the missing number in given series in the table

9	8	162
11	6	174
8	13	?

A 220

B 254

C 222

D 236

Answer: B

Explanation:

In each row, for the numbers a, b and c, pattern is : $c = a^2 + b^2 + a + b$

Eg :- $9^2 + 8^2 + (9 + 8) = 81 + 64 + 17 = 162$

$11^2 + 6^2 = (11 + 6) = 121 + 36 + 17 = 174$

Similarly, $8^2 + 13^2 + (8 + 13) = 64 + 169 + 21 = 254$

=> Ans - (B)

Question 18

If "A" denotes "addition", "B" denotes "divided by", "C" denotes "multiplication" and "D" denotes "subtraction", then
96 B 12 C 4 A 8 D 32 = ?

A 8

B 3

C 1

D 2

Answer: A

Explanation:

Expression : 96 B 12 C 4 A 8 D 32 = ?

$\equiv 96 \div 12 \times 4 + 8 - 32$

= $(8 \times 4) + 8 - 32$

= $32 + 8 - 32 = 8$

=> Ans - (A)

Question 19

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

A qrrr

B qrpq

C qrqr

D qppr

   Answer: C

Explanation:
The pattern followed is that the term 'pqr' is repeated and r's in increasing order are appended at the end.

= p**q**r p**q**rr p**q**rrr

=> Ans - (C)

Question 20

If east becomes south, then in which direction should a man move to go towards the north?
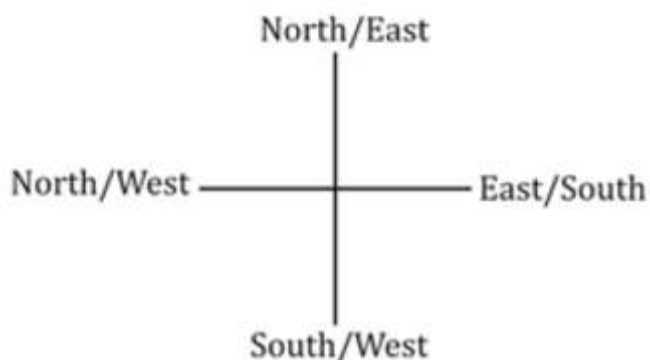
A North

B South

C East

D West

   Answer: C

Explanation:
If east becomes south, then North -> East , West -> North and South -> West

Thus, to go towards north, a man should move towards east.

=> 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• are numbered from 0 to 0 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, 'D' can be represented by 68, 10, etc.. and 'R' can be represented by 34, 22, etc. Similarly, you have to identify the set for the word 'PIZZA'.

MATRIX 1:

	0	1	2	3	4
0	I	P	I	M	R
1	D	I	W	R	W
2	S	H	R	B	E
3	F	R	E	P	R
4	R	E	P	C	F

MATRIX 2:

	5	6	7	8	9
5	A	E	X	A	Z
6	E	G	A	D	Y
7	K	A	X	G	M
8	A	B	C	A	W
9	Z	V	M	H	N

A 98, 44, 76, 11, 75

B 42, 00, 59, 95, 88

C 68, 22, 67, 00, 98

D 88, 24, 58, 66, 40

Answer: B

Explanation:

(A) : 98, 44, 76, 11, 75 = HFAIK

(B) : 42, 00, 59, 95, 88 = **PIZZA**

(C) : 68, 22, 67, 00, 98 = DRAIH

(D) : 88, 24, 58, 66, 40 = AEAGR

=> Ans - (B)

Question 22

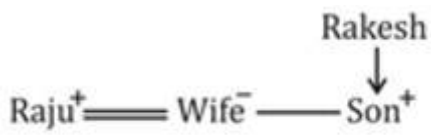Raju's wife is the sister of Rakesh's son. How is Raju related to Rakesh?

A Son

B Grandson

C Son-in-law

D Brother

Answer: C

Explanation:

Raju's wife is the sister of Rakesh's son, => Rakesh is the father-in-law of Raju.

Relation is :

Thus, Raju is son-in-law of Rakesh.

=> 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 figures ?

A

B

C

D

Answer: B

Question 24

Identify the diagram that best represents the relationship among the given classes. Cigarettes, Tobacco products, Alcohol

A

B

C

D

Answer: 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.

A

B

C

D

Answer: A

General Awareness

Instructions

For the following questions answer them individually

Question 26

Khajuraho Group of monuments are attributed to which dynasty?

A Chandela

B Mughal

C Maurya

D Shunga

Answer: A

Question 27

Ravuri Bharadhwaja won Jnanpith Award for work in which language?

A Gujarati

B Marathi

C Hindi

D Telugu

Answer: D

Question 28

The primary function of RNA is

A Photosynthesis

B Protein Synthesis

C Replication

D Translation

Answer: B

Question 29

..................is the movement of molecules across a cell membrane from a region of their lower concentration to a region of their higher concentration.

A Diffusion

B Osmosis

C Active Transport

D Passive Transport

Answer: C

Question 30

Study of classification of organisms is known as ....

A Serpentology

B Virology

C Taxonomy

D Physiology

Answer: C

Question 31

Which of the following elements has the lowest melting point?

A Iodine

B Lead

C Tin

D Mercury

Answer: D

Question 32

The common name of sodium bicarbonate is ....

A   baking soda

B   borax

C   bleach

D   epsom salt

Answer: A

Question 33

A computer language that expresses the presentation of structured documents, such as CSS, is called ....

A   Command Language

B   Machine Language

C   Markup Language

D   Style Sheet Language

Answer: D

Question 34

Who started Ganesha Festival?

A   Mahatma Gandhi

B   Lokmanya Tilak

C   Pandit Nehru

D   Indira Gandhi

Answer: B

Question 35

If hiring an extra worker increases a brick making unit's output from 2000 to 2250 units per day, but the factory has to reduce the price of its brick from Rs 15 to Rs 14 per brick to sell the additional output, the marginal revenue product of the last worker is

A   Rs 1500

B   Rs 250

C   Rs 3000

D   Rs 100

   Answer: A

Question 36

................is the unemployment which exists in any economy due to people being in the process of moving from one job to another.

A   Seasonal unemployment

B   Cyclical unemployment

C   Frictional unemployment

D   Structural unemployment

   Answer: C

Question 37

The highest number of tube wells is found in which one of the following countries?

A   India

B   Saudi Arabia

C   America

D   China

   Answer: A

Question 38

The soil found in the Eastern and Western coasts of India is ....

A   Red Rocky

B   Laterite

C   Black Cotton

D   Alluvial

    Answer: B

Question 39

Which of the following is a free encyclopedia, written collaboratively by the people who use it?

A   Google

B   Wikipedia

C   Encyclopedia

D   Yahoo

    Answer: B

Question 40

Equal day/night in both hemispheres is on ....

A   21st June and 21st March

B   5th July and 21st September

C   21st March and 23rd September

D   5th June and 21st September

    Answer: C

Question 41

Prague is the Capital City of ....

A   Saudi Arabia

B   North Korea

C   Czech Republic

D   Trinidad and Tobago

    Answer: C

Question 42

Shahjahan built the Taj Mahal for?

A   Marjani

B   Mehbooba

C   Mehjabeen

D   Mumtaz

   Answer: D

Question 43

In which year, Shivaji was crowned as the Chhatrapati?

A   1608

B   1646

C   1674

D   1710

   Answer: C

Question 44

Who Invented the nuclear reactor?

A   Enrico Fermi

B   Adolf Gaston Eugen Fick

C   Sandford Fleming

D   Benoit Fourneyron

   Answer: A

Question 45

What is the angle between centripetal acceleration and tangential acceleration?

A 90°

B 45°

C 0°

D 180°

　　Answer: A

Question 46

Rectifiers convert ....

A high voltage to low voltage

B low voltage to high voltage

C AC to DC

D DC to AC

　　Answer: C

Question 47

Nationalist Congress Party was founded in ....

A 1925

B 1955

C 1984

D 1999

　　Answer: D

Question 48

Bharatiya Janata Party is a part of which political group?

A United Progressive Alliance

B National Democratic Alliance

C Janata Parivar

D   Rashtra Parivar

   Answer: B

Question 49

Hopman cup is related to ....

A   Badminton

B   Lawn tennis

C   Cricket

D   Hockey

   Answer: B

Question 50

Who wrote the book -"The Argumentative Indian"?

A   Amartya Sen

B   Anita Desai

C   Arun Shourie

D   Arundhati Roy

   Answer: A

Mathematics

Instructions

For the following questions answer them individually

Question 51

If 6x + 4(2-x) > 3x -2 > 5x/2 - x/4; then value of x is

A   0

B   1

C   3

D   2

Answer: C

Explanation:

Expression 1 : 6x + 4(2-x) > 3x -2

=> $6x + 8 - 4x > 3x - 2$

=> $3x - 2x < 8 + 2$

=> $x < 10$ ----------(i)

Expression 2 : 3x -2 > 5x/2 - x/4

=> $3x - 2 > \frac{9x}{4}$

=> $3x - \frac{9x}{4} > 2$

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

=> $x > \frac{8}{3}$ ----------(ii)

Combining inequalities (i) and (ii), we get : $\frac{8}{3} < x < 10$

The only value that x can take among the options = 3

=> Ans - (C)

Question 52

What is the value of sin 300°?

A   -1/2

B   2

C   2/√3

D   -√3/2

Answer: D

Explanation:

Expression : sin 300°

= $sin(360 - 60)$

= $-sin(60)$

= $\frac{-\sqrt{3}}{2}$

=> Ans - (D)

Question 53

If 5/6th of 7/6th of a number is 140, then 9/4th of that number is

A 225

B 87

C 301

D 324

Answer: D

Explanation:

Let the number be x

=> $\frac{5}{6} \times \frac{7}{6} \times x = 140$

=> $x = 140 \times \frac{36}{35} = 4 \times 36$

=> $x = 144$

$\therefore$ 9/4th of the number = $\frac{9}{4} \times 144$

= $9 \times 36 = 324$

=> Ans - (D)

Question 54

When a discount of 20% is given on a pizza, the profit is 32%. If the discount is 18%, then the profit is

A 50 percent

B 64.7 percent

C 35.3 percent

D 20.6 percent

Answer: C

Explanation:

Let Marked Price = $Rs.100x$

When discount is 20%, Selling price = $\frac{100-20}{100} \times 100x = Rs.80x$

Let Cost price = $Rs.y$

Profit % = $\frac{80x-y}{y} \times 100 = 32$

=> $\frac{80x-y}{y} = \frac{32}{100} = \frac{8}{25}$

=> $2000x - 25y = 8y$

=> $25y + 8y = 2000x$

=> $y = \frac{2000x}{33} = 60.6x$

When discount is 18%, Selling price = $\frac{100-18}{100} \times 100x = Rs.82x$

$\therefore$ Profit % = $\frac{82x-60.6x}{60.6x} \times 100$

$\approx 35.3\%$

=> Ans - (C)

Question 55

Two students appeared for an examination. One of them secured 16 marks more than the other and his marks were 75% of the sum of their marks. The marks obtained by them are

A 98 and 82

B 49 and 33

C 96 and 80

D 24 and 8

Answer: D

Explanation:

Let marks scored by 1st student = x

=> Marks scored by another student = $(x + 16)$

According to question, => $(x + 16) = \frac{75}{100} \times (x + x + 16)$

=> $x + 16 = \frac{3}{2} \times (x + 8)$

=> $2x + 32 = 3x + 24$

=> $x = 32 - 24 = 8$

$\therefore$ Marks scored by other student = 8 + 16 = 24

=> Ans - (D)

Question 56

Rehman goes on a trip on his motor-cycle and rides for 661 kms. If he rides for 8 hours at a speed of 31 km/hr, find at what speed he travels for the remaining 7 hours of the journey?

A 50 km/hr

B 42 km/hr

C 53 km/hr

D 59 km/hr

Answer: D

Explanation:

Total distance covered = 661 km

He rides for 8 hours at a speed of 31 km/hr

=> Distance covered = $8 \times 31 = 248$ km

Distance left = 661 - 248 = 413 km

∴ Speed he should travel for the remaining 7 hours of the journey = $\frac{413}{7} = 59$ km/hr

=> Ans - (D)

Question 57

In a class of 50 students there are 27 girls. The average weight of these girls is 45 kg and average weight of the full class is 49.6 kgs. What is the average weight of the boys of the class?

A 55

B 54.2

C 53.4

D 53

Answer: A

Explanation:

Total number of students = 50 and number of girls = 27

=> Number of boys in class = 50 - 27 = 23

Average weight of girls = 45 kg

=> Total weight of girls = $45 \times 27 = 1215$ kg

Similarly, total weight of full class = $49.6 \times 50 = 2480$ kg

=> Total weight of boys = 2480 - 1215 = 1265 kg

∴ Average weight of boys = $\frac{1265}{23} = 55$ kg

=> Ans - (A)

Question 58

The third proportional of two numbers 4 and 20 is

A 36

B 40

C 100

D 60

Answer: C

Explanation:

Three numbers a,b,c are in proportion iff $b^2 = ac$

Here, a = 4 and b = 20

=> $(20)^2 = 4 \times c$

=> $c = \frac{20 \times 20}{4} = 5 \times 20$

=> $c = 100$

=> Ans - (C)

Question 59

Mandeep works 3 times as fast as Sampat. If Sampat can complete a job alone in 60 days, then in how many days can they together finish the job?

A 7 days

B 4 days

C 5 days

D 15 days

Answer: D

Explanation:

Let total work to be done = 60 units

Sampat can complete a job alone in 60 days

=> Sampat's efficiency = $\frac{60}{60} = 1$ unit/day

Also, Mandeep works 3 times as fast as Sampat

=> Mandeep's efficiency = $3 \times 1 = 3$ units/day

(Sampat+Mandeep)'s 1 day's work together = 1 + 3 = 4 units/day

∴ Time taken by them to finish the job together = $\frac{60}{4} = 15$ days

=> Ans - (D)

Question 60

Reflection of the point (3,-6) in the y-axis is

A (3,6)

B (3,-6)

C (-3,-6)

D (-3,6)

Answer: C

Explanation:
Reflection of point (x,y) in the y-axis is (-x,y)

=> Reflection of point (3,-6) = (-3,-6)

=> Ans - (C)

Question 61

If $\sqrt{(1 - cos^2 A)}$ = x, then the value of x is

A cosecA

B sinA

C tanA

D secA

Answer: B

Explanation:
Expression : $\sqrt{1 - cos^2 A}$

$\because (sin^2 A + cos^2 A = 1)$

= $\sqrt{sin^2 A} = sinA$

=> Ans - (B)

Question 62

If cosA/(1 - sinA) = x, then the value of x is

A secA - tanA

B cosecA + tanA

C secA + tanA

D cosecA - tanA

Answer: C

Explanation:

Expression : cosA/(1 - sinA) = x

Multiplying both numerator and denominator by $(1 + sinA)$

$= \frac{cosA}{1-sinA} \times \frac{(1+sinA)}{(1+sinA)}$

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

$= \frac{1+sinA}{cosA} = \left(\frac{1}{cosA} + \frac{sinA}{cosA}\right)$

$= secA + tanA$

=> Ans - (C)

Question 63

Simplify $576b^3x^2a^4z^3/36a^3b^2z$

A $16bx^2az^2$

B bx^2a^2z

C $32ba^2z$

D $32bx^a2z$

Answer: A

Explanation:

Expression : $576b^3x^2a^4z^3/36a^3b^2z$

$= \frac{576}{36} \times \frac{b^3x^2a^4z^3}{b^2a^3z}$

$= 16 \times (b)^{3-2}(x)^2(a)^{4-3}(z)^{3-1}$

$= 16bx^2az^2$

=> Ans - (A)

Question 64

If x + y = 13 and $x^2 + y^2$ = 89, then find xy is

A 80

B 169

C 258

D 40

    Answer: D

Explanation:
Given : $(x + y) = 13$ and $x^2 + y^2 = 89$

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

=> $(13)^2 = 89 + (2 \times xy)$

=> $2xy = 169 - 89 = 80$

=> $xy = \frac{80}{2} = 40$

=> Ans - (D)

Question 65

If the selling price is Rs 2125 after getting a discount of 15% what was the marked price?

A Rs 2443.75

B Rs 1806.25

C Rs 1847

D Rs 2500

    Answer: D

Explanation:
Let Marked Price = Rs. x

Selling price = Rs. 2125

Discount % = $\frac{(x-2125)}{x} \times 100 = 15$

=> $\frac{x-2125}{x} = \frac{15}{100} = \frac{3}{20}$

=> $20x - 42500 = 3x$

=> $20x - 3x = 17x = 42500$

=> $x = \frac{42500}{17} = Rs\ 2500$

=> Ans - (D)

Question 66

What is the equation of the line passing through the point (1,3) and making an angle of -45° with the positive x-axis?

A x + y = 4

B   x + y = 2

C   x - y = 4

D   x - y = 2

Answer: A

Explanation:

Slope of line making an angle of -45° with the positive x-axis = $tan(-45°)$

=> Slope, $m = -tan(45) = -1$

Line is passing through point (1,3)

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

=> $(y - 3) = -1(x - 1)$

=> $y - 3 = -x + 1$

=> $x + y = 4$

=> Ans - (A)

Question 67

The measures of the four angles of a quadrilateral are in the ratio 1:2:3:4. What is the measure of the biggest angle?

A   36°

B   144°

C   72°

D   108°

Answer: B

Explanation:

Let the four angles of the quadrilateral be $x, 2x, 3x$ and $4x$

Sum of internal angles of a quadrilateral = 360°

=> $x + 2x + 3x + 4x = 360°$

=> $10x = 360°$

=> $x = \frac{360}{10} = 36°$

$\therefore$ Biggest angle = $4x = 4 \times 36 = 144°$

=> Ans - (B)

Question 68

A tent is to be built in the form of a cylinder of radius 5 m surmounted by a cone of the same radius. If the height of the cylindrical part is 6 m and slant height of the conical part is 10 m, how much canvas will be required to build the tent? Allow 20% extra canvas for folding and stitching. (Take π = 22/7)

A 829.72 sq mts

B 414.86 sq mts

C 1244.58 sq mts

D 207.43 sq mts

Answer: B

Explanation:

Radius of cone = Radius of cylinder = r = 5 m

Height of cylinder = h = 6 m

Slant height of cone = l = 10 m

Canvas required = Curved surface area of cylinder + Curved surface area of cone

= $2\pi rh + \pi rl = (\pi r)(2h + l)$

= $\left(\frac{22}{7} \times 5\right)(2 \times 6 + 10)$

= $\frac{110}{7} \times 22 = 345.71 \, m^2$

Also, 20% extra canvas is required for folding and stitching

∴ Total canvas required = $\frac{120}{100} \times 345.71$

= $1.2 \times 345.71 \approx 414.86 \, m^2$

=> Ans - (B)

Question 69

The sum of the digits of a 2-digit number is 8. If we add 36 to the number, the new number obtained is a number formed by interchange of the digits. What is the number?

A 26

B 62

C 34

D 43

Answer: A

Explanation:

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

=> Number = $10x + y$

Sum of digits, $x + y = 8$ ------------(i)

According to question, => $10x + y + 36 = 10y + x$

=> $9y - 9x = 36$

=> $y - x = \frac{36}{9} = 4$ ------------(ii)

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

=> $(y + y) = (8 + 4)$

=> $y = \frac{12}{2} = 6$

Substituting it in equation (i), => $x = 8 - 6 = 2$

$\therefore$ Number = 26

=> Ans - (A)

Question 70

In which of the following quadrilaterals both pairs of opposite sides are parallel?

A Rhombus

B Cyclic quadrilateral

C Kite

D Isosceles trapezium

Answer: A

Explanation:
In an isosceles trapezium only one pair of opposite sides is parallel, while in a cyclic quadrilateral and a kite, none of the opposite sides is parallel, but in a rhombus both pairs of opposite sides are parallel.

=> Ans - (A)

Question 71

A bank offers 10% compound interest per half year. A customer deposits Rs. 5200 each on 1st January and 1st July of a year. At the end of the year, the amount he would have profit by way of interest is:

A Rs 3224

B Rs 1612

C Rs 806

D Rs 403

Answer: B

Explanation:

The interest earned on 5200 from Jan to July will be $5200 \times 10 \times \frac{1}{100}$ (Since rate of interest is 10 % per 6 months)

= $52 \times 10 = 520$

Hence, 5200 will amount to 5720. He adds another 5200 to this. So the net amount becomes 5200 + 5720 = 10920

Now interest earned on this amount in a period of 6 months will be $10920 \times 10 \times \frac{1}{100} = 1092$

So the final amount will be 10920 + 1092 = 12012

Total money he deposited = 5200 + 5200 = 10400

Hence, amount earned via interest = 12012 - 10400 = 1612

=> Ans - (B)

Question 72

Read the data and answer the questions ?

	Boys	Girls
Medical	25	40
Engineering	60	25

What percent of the students who choose engineering are girls ?

A 41.67

B 16.67

C 38.46

D 29.41

Answer: D

Explanation:

Number of girls who chose engineering = 25

Total number of engineers = 60 + 25 = 85

=> Percent of the girls who choose engineering = $\frac{25}{85} \times 100$

= $\frac{500}{17} = 29.41\%$

=> Ans - (D)

Question 73

Read the data answer the given questions

	Cumulative production
January	690
February	1000
March	1300
April	1760
May	2430
June	2720

How many cars were manufactured in the month of April and May

A 760

B 960

C 1130

D 4190

Answer: C

Explanation:
Number of cars produced in :

January = 690

February = 1000 - 690 = 310

March = 1300 - 1000 = 300

April = 1760 - 1300 = 460

May = 2430 - 1760 = 670

June = 2720 - 2430 = 290

=> Number of cars that were manufactured in the month of the April and may = 460 + 670 = 1130

=> Ans - (C)

Question 74

Read the data and answer the questions

Day of the week	Distance jogged (in km)
Monday	5
Tuesday	4.5
Wednesday	0.5
Thursday	0.5
Friday	0.5
Saturday	4
Sunday	1

If 400 calories are burned by Jogging 5km, how many calories were burnt in the given week?

A 1280 calories

B 1330 calories

C 1230 calories

D 1180 calories

Answer: A

Explanation:

Total distance jogged in entire week

= 5 + 4.5 + 0.5 + 0.5 + 0.5 + 4 + 1 = 16 km

Calories burned after jogging 5 km = 400 calories

=> Calories burned after jogging 16 km = $\frac{400}{5} \times 16$

= $80 \times 16 = 1280$ calories

=> Ans - (A)

Question 75

Read the given data and answer the questions

Items	Yearly expence in lakhs
Raw Materilas	10
Labour	3
Rent	4
Interest	2
Taxes	1

Labour and interest are what percent of total expenses?

A 10.5 percent

B 17.75 percent

C 25 percent

D 32.25 percent

Answer: C

Explanation:

Yearly expense in labour and interest (in lakhs) = 3 + 2 = 5

Total expenses (in lakhs) = 10 + 3 + 4 + 2 + 1 = 20

=> Required % = $\frac{5}{20} \times 100$

= $\frac{100}{4} = 25\%$

=> Ans - (C)

English

Question 76

**Select the synonym of
succulent**

A   torrid

B   luscious

C   arid

D   bare

   Answer: B

Question 77

Select the word with the correct spelling.

A   stamppede

B   easemant

C   cul-de-sac

D   ripostes

   Answer: D

Question 78

**In the following question, out of the four alternatives, select the alternative which is the best substitute of the phrase.
a state of stunned confusion or bewilderment**

A   snarl

B   maze

C daze

D paradox

Answer: C

Question 79

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 majestic Himalayas are revered, for from them ....the life sustaining river, mother Ganga.

A derives

B exudes

C emanates

D radiates

Answer: C

Question 80

Improve the bracketed part of the sentence.
The kids are happy. They (were playing) in the pool since noon.

A are playing

B played

C have been playing

D no improvement

Answer: C

Question 81

Select the synonym of
snarl

A growl

B empathy

C accord

D   amity

Answer: A

Question 82

In the following question, out of the four alternatives, select the alternative which is the best substitute of the phrase.
To delay or prevent someone or something by obstructing them

A   to perturb

B   to impede

C   to irk

D   to faze

Answer: B

Question 83

In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the idiom/phrase.
By the seat of one's pants

A   When one is saved in the nick of time

B   Your future depends on what choices you make now

C   To do it using only one's own experience and judgment

D   Nothing worthwhile can be achieved if you sit in one place

Answer: C

Question 84

Rearrange the parts of the sentence in correct order
The pesticides
P-are more harmful than
Q-those used in many other parts of the world
R-used in India

A   RQP

B   PQR

C RPQ

D QRP

    Answer: C

Question 85

Improve the bracketed part of the sentence. The sink is leaking, we had better (send for) a plumber.

A be sending for

B been sending for

C send off

D no improvement

    Answer: D

Question 86

Select the antonym of
panacea

A malady

B cure

C elixir

D nostrum

    Answer: A

Question 87

In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the idiom/phrase.
Discretion is the greater part of valour

A To be brave in any situation

B Caution is preferable to rash bravery

C A genuinely brave person is always humble

D If you are over-cautious then you cannot achieve great things

Answer: B

Question 88

**Select the antonym of
cameo**

A trinket

B gem

C bauble

D plain

   Answer: D

Question 89

**Rearrange the parts of the sentence in correct order
The last issue
P-can bend policy by virtue of its control over its users
Q-how a powerful monopoly
R-we need to examine is**

A QRP

B QPR

C PRQ

D RQP

   Answer: D

Question 90

Select the word with the correct spelling.

A ceramix

B bulwaark

C adjourns

D studiuos

   Answer: C

Question 91

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

A   renounced

B   deserted

C   neglected

D   relinquished

   Answer: A

Question 92

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 emperor was impressed with the singer and asked, 'What can I do for you?'

A   The emperor impressed with the singer and asked that what he could do for him.

B   The emperor was impressed with the singer and asked what he could do for him.

C   The emperor impressed with the singer asked what could be done for him.

D   The emperor was impressed with the singer and asked what could be done for him.

   Answer: B

Question 93

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'.
Vicky is the one who(A)/always finds faults with(B)/whatever Priya does.(C)/No error(D)

A   Vicky is the one who

B   always finds faults with

C   whatever Priya does.

D   No error

   Answer: D

Question 94

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 online shopping site lowered the prices.

A   Lowering of the prices was done by the online shopping site.

B   The prices were lowered by the online shopping site.

C   The prices had been lowered by the online shopping site.

D   The prices have been lowered by the online shopping site.

Answer: B

Question 95

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'.
Some are born great.(A)/Some achieve greatness(B)/and some had greatness thrust on them.(C)/No error(D)

A   A

B   B

C   C

D   D

Answer: C

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.
Irony. ....word captures our response to the ongoing nationwide drought in more ways than one. We have woken.................the reality of drought a full six months after the end of monsoon. After waking up, we focus ....the drinking water.................in urban centres and not the multidimensional crisis of life and livelihood in ....hinterland.

Question 96

Irony. ....word captures our response to the ongoing nationwide drought

A   This one

B That one

C One

D A

Answer: A

Question 97

We have woken ....the reality of drought

A up

B up to

C to

D for

Answer: B

Question 98

After waking up, we focus ....

A on

B in

C into

D upon

Answer: A

Question 99

drinking water ....in urban centres

A dilemma

B trouble

C impasse

D crisis

Answer: D

Question 100

multidimensional crisis of life and livelihood in ....hinterland

A   rustic

B   village

C   rural

D   urban

Answer: C

SSC CHSL 20 Jan 2017 Afternoon Shift

Reasoning

Instructions

For the following questions answer them individually

Question 1

Select the related word/letters/number from the given alternatives.
Jammu and Kashmir : North : : Tamil Nadu : ?

A South

B East

C West

D North-east

Answer: A

Explanation:

Expression : Jammu and Kashmir : North : : Tamil Nadu : ?

Jammu and Kashmir is in the North of India, similarly Tamil Nadu is in the south.

=> Ans - (A)

Question 2

Select the related word/letters/number from the given alternatives.
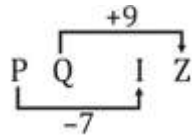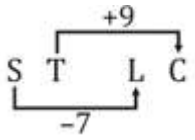ST : LC : : PQ : ?

A IY

B IZ

C JZ

D JY

Answer: B

Explanation:

Expression = ST : LC : : PQ : ?

The pattern followed is :

Thus, PQ : **IZ**

=> Ans - (B)

Question 3

Select the related word/letters/number from the given alternatives.
TC : NF : : QM : ?

A JY
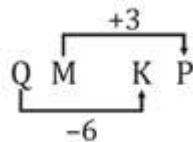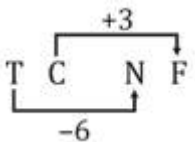
B IY

C HY

D KP

   Answer: D

Explanation:
Expression = TC : NF : : QM : ?

The pattern followed is :

Thus, QM : **KP**

=> Ans - (D)

Question 4

Select the related word/letters/number from the given alternatives.
9 : 82 : : 11 : ?

A 121

B 122

C 120

D 125

   Answer: B

Explanation:
Expression = 9 : 82 : : 11 : ?

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

Eg :- $9 : 9^2 + 1 = 9 : 82$

Similarly, $(11)^2 + 1 = 121 + 1 = 122$

=> Ans - (B)

Question 5

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

A Nokia

B Whirlpool

C Apple

D Micromax

  Answer: B

Explanation:
Except Whirlpool other three are mobile manufacturing companies, hence it is the odd one out.

=> Ans - (B)

Question 6

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

A OP

B UI

C TA

D SE

  Answer: B

Explanation:
Only in UI, both letters are vowels, hence it is the odd one out.

=> Ans - (B)

Question 7

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

A 636

B 253

C 396

D 473

Answer: A

Explanation:
Middle digit is sum of 1st and 3rd digit, but $6 + 6 \neq 12$, hence 636 is the odd one out.

=> Ans - (A)

Question 8

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

A 93

B 89

C 79

D 81

Answer: D

Explanation:
Only $81 = 9^2$ is a perfect square, hence it is the odd one out.

=> Ans - (D)

Question 9

A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series.
Sowing, Irrigation, Hoeing, ?

A Harvesting

B Crop selection

C Land preparation

D Seed selection

Answer: A

Explanation:
Steps in crop production are given.

= Sowing -> Irrigation -> Hoeing -> Harvesting

=> 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.
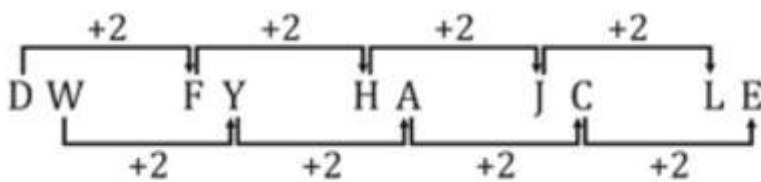**DW, FY, HA, JC, ?**

A LD

B LE

C ME

D MD

Answer: B

Explanation:
Expression : DW, FY, HA, JC, ?

The pattern followed is :

Thus, missing term = **LE**

=> 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.
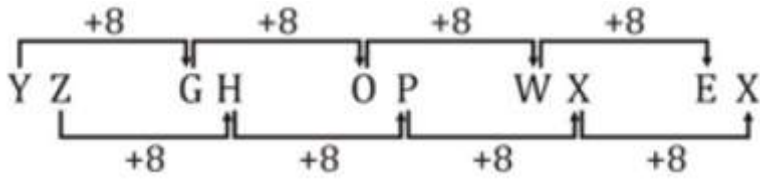**YZ, GH, OP, WX, ?**

A DN

B GH

C EF

D DE

Answer: C

Explanation:

Expression : YZ, GH, OP, WX, ?

The pattern followed is :

Thus, missing term = **EF**

=> Ans - (C)

Question 12

A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series.
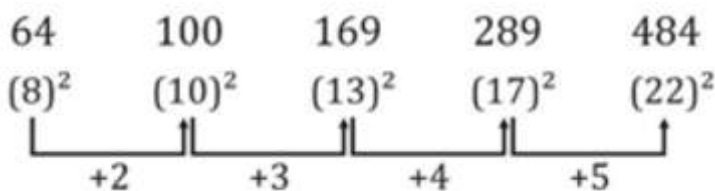**64, 100, 169, 289, ?**

A   484

B   444

C   404

D   468

   Answer: A

Explanation:
The pattern followed is :

Thus, missing number = **484**

=> Ans - (A)

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) The average age of working people in New Zealand is 58.
(II) Death rate in New Zealand is very low as the climatic conditions are sound.
Conclusion:
(I) In New Zealand youth is required in workforce as well as in education.
(II) There are more job opportunities available in New Zealand.

A   Only conclusion II follows

B Conclusion I and II both follow

C Neither I nor II follow

D Only conclusion I follows

Answer: D

Question 14

The sum of the ages of Ram and Shyam is 49. The difference between the age of Shyam and twice the age of Ram is 8.
What is the age (in years) of Ram?

A 30

B 20

C 19

D 29

Answer: C

Explanation:

Let Ram's age = x years

=> Shyam's age = $(49 - x)$ years

According to ques, => $2x - (49 - x) = 8$

=> $2x + x = 8 + 49$

=> $3x = 57$

=> $x = \frac{57}{3} = 19$

Thus, Ram's age is 19 years.

=> Ans - (C)

Question 15

Arrange the given words in the sequence in which they occur in the dictionary.
i. Dominant
ii. Dormant
iii. Docile
iv. Document

A iii, iv, i, ii

B iv, i, iii, ii

C i, iii, ii, iv

D i, ii, iii, iv

Answer: A

Explanation:

As per the order of dictionary :

= Docile -> Document -> Dominant -> Dormant

≡ iii, iv, i, ii

=> Ans - (A)

Question 16

In a certain code language, "DESIRE" is written as "EGVMWK". How is "RECESS" written in that code language?

A SGXFIY

B SFGIXY

C SGFIXY

D SGFIXX

Answer: C

Explanation:

"DESIRE" is written as "EGVMWK"

The pattern followed is :

Similarly, for RECESS :

=> Ans - (C)

Question 17

Find the missing number in given series in the table

9	8	162
11	6	174
8	13	?

A 220

B 254

C 222

D 236

Answer: B

Explanation:

In each row, for the numbers a, b and c, pattern is : $c = a^2 + b^2 + a + b$

Eg :- $9^2 + 8^2 + (9 + 8) = 81 + 64 + 17 = 162$

$11^2 + 6^2 = (11 + 6) = 121 + 36 + 17 = 174$

Similarly, $8^2 + 13^2 + (8 + 13) = 64 + 169 + 21 = 254$

=> Ans - (B)

Question 18

If "A" denotes "addition", "B" denotes "divided by", "C" denotes "multiplication" and "D" denotes "subtraction", then
96 B 12 C 4 A 8 D 32 = ?

A 8

B 3

C 1

D 2

Answer: A

Explanation:

Expression : 96 B 12 C 4 A 8 D 32 = ?

$\equiv 96 \div 12 \times 4 + 8 - 32$

= $(8 \times 4) + 8 - 32$

= $32 + 8 - 32 = 8$

=> Ans - (A)

Question 19

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

A   qrrr

B   qrpq

C   qrqr

D   qppr

   Answer: C

Explanation:
The pattern followed is that the term 'pqr' is repeated and r's in increasing order are appended at the end.

= p**q**r p**q**rr p**q**rrr

=> Ans - (C)

Question 20

If east becomes south, then in which direction should a man move to go towards the north?
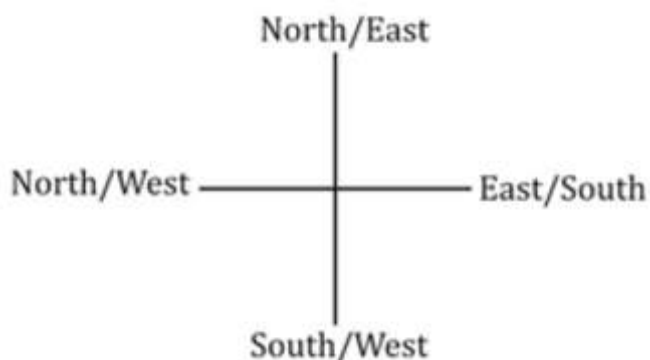
A   North

B   South

C   East

D   West

   Answer: C

Explanation:
If east becomes south, then North -> East , West -> North and South -> West

Thus, to go towards north, a man should move towards east.

=> 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• are numbered from 0 to 0 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, 'D' can be represented by 68, 10, etc.. and 'R' can be represented by 34, 22, etc. Similarly, you have to identify the set for the word 'PIZZA'.

MATRIX 1:

	0	1	2	3	4
0	I	P	I	M	R
1	D	I	W	R	W
2	S	H	R	B	E
3	F	R	E	P	R
4	R	E	P	C	F

MATRIX 2:

	5	6	7	8	9
5	A	E	X	A	Z
6	E	G	A	D	Y
7	K	A	X	G	M
8	A	B	C	A	W
9	Z	V	M	H	N

A   98, 44, 76, 11, 75

B   42, 00, 59, 95, 88

C   68, 22, 67, 00, 98

D   88, 24, 58, 66, 40

Answer: B

Explanation:

(A) : 98, 44, 76, 11, 75 = HFAIK

(B) : 42, 00, 59, 95, 88 = **PIZZA**

(C) : 68, 22, 67, 00, 98 = DRAIH

(D) : 88, 24, 58, 66, 40 = AEAGR

=> Ans - (B)

Question 22

Raju's wife is the sister of Rakesh's son. How is Raju related to Rakesh?
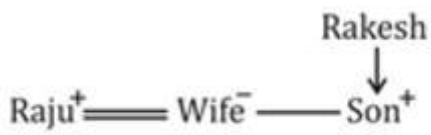
A Son

B Grandson

C Son-in-law

D Brother

Answer: C

Explanation:

Raju's wife is the sister of Rakesh's son, => Rakesh is the father-in-law of Raju.

Relation is :

Thus, Raju is son-in-law of Rakesh.

=> 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 figures ?

A

B

C

D

Answer: B

Question 24

Identify the diagram that best represents the relationship among the given classes. Cigarettes, Tobacco products, Alcohol

A

B

C

D

Answer: 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.

A

B

C

D

General Awareness

Instructions

For the following questions answer them individually

Question 26

Khajuraho Group of monuments are attributed to which dynasty?

A Chandela

B Mughal

C Maurya

D Shunga

Answer: A

Question 27

Ravuri Bharadhwaja won Jnanpith Award for work in which language?

A Gujarati

B Marathi

C Hindi

D Telugu

Answer: D

Question 28

The primary function of RNA is

A Photosynthesis

B Protein Synthesis

C Replication

D   Translation

Answer: B

Question 29

.................is the movement of molecules across a cell membrane from a region of their lower concentration to a region of their higher concentration.

A   Diffusion

B   Osmosis

C   Active Transport

D   Passive Transport

Answer: C

Question 30

Study of classification of organisms is known as ....

A   Serpentology

B   Virology

C   Taxonomy

D   Physiology

Answer: C

Question 31

Which of the following elements has the lowest melting point?

A   Iodine

B   Lead

C   Tin

D   Mercury

Answer: D

Question 32

The common name of sodium bicarbonate is ....

A   baking soda

B   borax

C   bleach

D   epsom salt

Answer: A

Question 33

A computer language that expresses the presentation of structured documents, such as CSS, is called ....

A   Command Language

B   Machine Language

C   Markup Language

D   Style Sheet Language

Answer: D

Question 34

Who started Ganesha Festival?

A   Mahatma Gandhi

B   Lokmanya Tilak

C   Pandit Nehru

D   Indira Gandhi

Answer: B

Question 35

If hiring an extra worker increases a brick making unit's output from 2000 to 2250 units per day, but the factory has to reduce the price of its brick from Rs 15 to Rs 14 per brick to sell the additional output, the marginal revenue product of the last worker is

A   Rs 1500

B   Rs 250

C   Rs 3000

D   Rs 100

   Answer: A

Question 36

................is the unemployment which exists in any economy due to people being in the process of moving from one job to another.

A   Seasonal unemployment

B   Cyclical unemployment

C   Frictional unemployment

D   Structural unemployment

   Answer: C

Question 37

The highest number of tube wells is found in which one of the following countries?

A   India

B   Saudi Arabia

C   America

D   China

   Answer: A

Question 38

The soil found in the Eastern and Western coasts of India is ....

A   Red Rocky

B   Laterite

C   Black Cotton

D   Alluvial

   Answer: B

Question 39

Which of the following is a free encyclopedia, written collaboratively by the people who use it?

A   Google

B   Wikipedia

C   Encyclopedia

D   Yahoo

   Answer: B

Question 40

Equal day/night in both hemispheres is on ....

A   21st June and 21st March

B   5th July and 21st September

C   21st March and 23rd September

D   5th June and 21st September

   Answer: C

Question 41

Prague is the Capital City of ....

A   Saudi Arabia

B   North Korea

C   Czech Republic

D   Trinidad and Tobago

   Answer: C

Question 42

Shahjahan built the Taj Mahal for?

A Marjani

B Mehbooba

C Mehjabeen

D Mumtaz

Answer: D

Question 43

In which year, Shivaji was crowned as the Chhatrapati?

A 1608

B 1646

C 1674

D 1710

Answer: C

Question 44

Who Invented the nuclear reactor?

A Enrico Fermi

B Adolf Gaston Eugen Fick

C Sandford Fleming

D Benoit Fourneyron

Answer: A

Question 45

What is the angle between centripetal acceleration and tangential acceleration?

A 90°

B 45°

C 0°

D 180°

   Answer: A

Question 46

Rectifiers convert ....

A high voltage to low voltage

B low voltage to high voltage

C AC to DC

D DC to AC

   Answer: C

Question 47

Nationalist Congress Party was founded in ....

A 1925

B 1955

C 1984

D 1999

   Answer: D

Question 48

Bharatiya Janata Party is a part of which political group?

A United Progressive Alliance

B National Democratic Alliance

C Janata Parivar

D Rashtra Parivar

Answer: B

Question 49

Hopman cup is related to ....

A Badminton

B Lawn tennis

C Cricket

D Hockey

Answer: B

Question 50

Who wrote the book -"The Argumentative Indian"?

A Amartya Sen

B Anita Desai

C Arun Shourie

D Arundhati Roy

Answer: A

Mathematics

Instructions

For the following questions answer them individually

Question 51

If 6x + 4(2-x) > 3x -2 > 5x/2 - x/4; then value of x is

A 0

B 1

C 3

D 2

Answer: C

Explanation:
Expression 1 : 6x + 4(2-x) > 3x -2

=> $6x + 8 - 4x > 3x - 2$

=> $3x - 2x < 8 + 2$

=> $x < 10$ ----------(i)

Expression 2 : 3x -2 > 5x/2 - x/4

=> $3x - 2 > \frac{9x}{4}$

=> $3x - \frac{9x}{4} > 2$

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

=> $x > \frac{8}{3}$ ---------(ii)

Combining inequalities (i) and (ii), we get : $\frac{8}{3} < x < 10$

The only value that x can take among the options = 3

=> Ans - (C)

Question 52

What is the value of sin 300°?

A   -1/2

B   2

C   2/√3

D   -√3/2

Answer: D

Explanation:
Expression : sin 300°

= $sin(360 - 60)$

= $-sin(60)$

= $\frac{-\sqrt{3}}{2}$

=> Ans - (D)

Question 53

If 5/6th of 7/6th of a number is 140, then 9/4th of that number is

A 225

B 87

C 301

D 324

   Answer: D

Explanation:

Let the number be x

=> $\frac{5}{6} \times \frac{7}{6} \times x = 140$

=> $x = 140 \times \frac{36}{35} = 4 \times 36$

=> $x = 144$

∴ 9/4th of the number = $\frac{9}{4} \times 144$

= $9 \times 36 = 324$

=> Ans - (D)

Question 54

When a discount of 20% is given on a pizza, the profit is 32%. If the discount is 18%, then the profit is

A 50 percent

B 64.7 percent

C 35.3 percent

D 20.6 percent

   Answer: C

Explanation:

Let Marked Price = $Rs.100x$

When discount is 20%, Selling price = $\frac{100-20}{100} \times 100x = Rs.80x$

Let Cost price = $Rs.y$

Profit % = $\frac{80x-y}{y} \times 100 = 32$

=> $\frac{80x-y}{y} = \frac{32}{100} = \frac{8}{25}$

=> $2000x - 25y = 8y$

=> $25y + 8y = 2000x$

=> $y = \frac{2000x}{33} = 60.6x$

When discount is 18%, Selling price = $\frac{100-18}{100} \times 100x = Rs. 82x$

$\therefore$ Profit % = $\frac{82x-60.6x}{60.6x} \times 100$

$\approx 35.3\%$

=> Ans - (C)

Question 55

Two students appeared for an examination. One of them secured 16 marks more than the other and his marks were 75% of the sum of their marks. The marks obtained by them are

A 98 and 82

B 49 and 33

C 96 and 80

D 24 and 8

Answer: D

Explanation:

Let marks scored by 1st student = x

=> Marks scored by another student = $(x + 16)$

According to question, => $(x + 16) = \frac{75}{100} \times (x + x + 16)$

=> $x + 16 = \frac{3}{2} \times (x + 8)$

=> $2x + 32 = 3x + 24$

=> $x = 32 - 24 = 8$

$\therefore$ Marks scored by other student = 8 + 16 = 24

=> Ans - (D)

Question 56

Rehman goes on a trip on his motor-cycle and rides for 661 kms. If he rides for 8 hours at a speed of 31 km/hr, find at what speed he travels for the remaining 7 hours of the journey?

A 50 km/hr

B 42 km/hr

C 53 km/hr

D 59 km/hr

Answer: D

Explanation:

Total distance covered = 661 km

He rides for 8 hours at a speed of 31 km/hr

=> Distance covered = $8 \times 31 = 248$ km

Distance left = 661 - 248 = 413 km

$\therefore$ Speed he should travel for the remaining 7 hours of the journey = $\frac{413}{7} = 59$ km/hr

=> Ans - (D)

Question 57

In a class of 50 students there are 27 girls. The average weight of these girls is 45 kg and average weight of the full class is 49.6 kgs. What is the average weight of the boys of the class?

A 55

B 54.2

C 53.4

D 53

Answer: A

Explanation:

Total number of students = 50 and number of girls = 27

=> Number of boys in class = 50 - 27 = 23

Average weight of girls = 45 kg

=> Total weight of girls = $45 \times 27 = 1215$ kg

Similarly, total weight of full class = $49.6 \times 50 = 2480$ kg

=> Total weight of boys = 2480 - 1215 = 1265 kg

$\therefore$ Average weight of boys = $\frac{1265}{23} = 55$ kg

=> Ans - (A)

Question 58

The third proportional of two numbers 4 and 20 is

A 36

B 40

C 100

D 60

Answer: C

Explanation:

Three numbers a,b,c are in proportion iff $b^2 = ac$

Here, a = 4 and b = 20

=> $(20)^2 = 4 \times c$

=> $c = \frac{20 \times 20}{4} = 5 \times 20$

=> $c = 100$

=> Ans - (C)

Question 59

Mandeep works 3 times as fast as Sampat. If Sampat can complete a job alone in 60 days, then in how many days can they together finish the job?

A 7 days

B 4 days

C 5 days

D 15 days

Answer: D

Explanation:

Let total work to be done = 60 units

Sampat can complete a job alone in 60 days

=> Sampat's efficiency = $\frac{60}{60} = 1$ unit/day

Also, Mandeep works 3 times as fast as Sampat

=> Mandeep's efficiency = $3 \times 1 = 3$ units/day

(Sampat+Mandeep)'s 1 day's work together = 1 + 3 = 4 units/day

$\therefore$ Time taken by them to finish the job together = $\frac{60}{4} = 15$ days

=> Ans - (D)

Question 60

Reflection of the point (3,-6) in the y-axis is

A (3,6)

B (3,-6)

C (-3,-6)

D (-3,6)

   Answer: C

Explanation:

Reflection of point (x,y) in the y-axis is (-x,y)

=> Reflection of point (3,-6) = (-3,-6)

=> Ans - (C)

Question 61

If $\sqrt{(1 - cos^2 A)}$ = x, then the value of x is

A cosecA

B sinA

C tanA

D secA

   Answer: B

Explanation:

Expression : $\sqrt{1 - cos^2 A}$

$\because (sin^2 A + cos^2 A = 1)$

= $\sqrt{sin^2 A} = sinA$

=> Ans - (B)

Question 62

If cosA/(1 - sinA) = x, then the value of x is

A secA - tanA

B cosecA + tanA

C secA + tanA

D cosecA - tanA

Answer: C

Explanation:

Expression : cosA/(1 - sinA) = x

Multiplying both numerator and denominator by $(1 + sinA)$

= $\frac{cosA}{1-sinA} \times \frac{(1+sinA)}{(1+sinA)}$

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

= $\frac{1+sinA}{cosA} = (\frac{1}{cosA} + \frac{sinA}{cosA})$

= $secA + tanA$

=> Ans - (C)

Question 63

Simplify $576b^3 x^2 a^4 z^3 / 36a^3 b^2 z$

A $16bx^2 az^2$

B $bx^2 a^2 z$

C $32ba^2 z$

D $32bx^a 2z$

Answer: A

Explanation:

Expression : $576b^3 x^2 a^4 z^3 / 36a^3 b^2 z$

= $\frac{576}{36} \times \frac{b^3 x^2 a^4 z^3}{b^2 a^3 z}$

= $16 \times (b)^{3-2} (x)^2 (a)^{4-3} (z)^{3-1}$

= $16bx^2 az^2$

=> Ans - (A)

Question 64

If x + y = 13 and $x^2 + y^2$ **= 89, then find xy is**

A 80

B 169

C 258

D 40

Answer: D

Explanation:
Given : $(x + y) = 13$ and $x^2 + y^2 = 89$

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

=> $(13)^2 = 89 + (2 \times xy)$

=> $2xy = 169 - 89 = 80$

=> $xy = \frac{80}{2} = 40$

=> Ans - (D)

Question 65

If the selling price is Rs 2125 after getting a discount of 15% what was the marked price?

A Rs 2443.75

B Rs 1806.25

C Rs 1847

D Rs 2500

Answer: D

Explanation:
Let Marked Price = Rs. x

Selling price = Rs. 2125

Discount % = $\frac{(x - 2125)}{x} \times 100 = 15$

=> $\frac{x - 2125}{x} = \frac{15}{100} = \frac{3}{20}$

=> $20x - 42500 = 3x$

=> $20x - 3x = 17x = 42500$

=> $x = \frac{42500}{17} = Rs\ 2500$

=> Ans - (D)

Question 66

What is the equation of the line passing through the point (1,3) and making an angle of -45° with the positive x-axis?

A x + y = 4

B x + y = 2

C x - y = 4

D x - y = 2

Answer: A

Explanation:

Slope of line making an angle of -45° with the positive x-axis = $tan(-45°)$

=> Slope, $m = -tan(45) = -1$

Line is passing through point (1,3)

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

=> $(y - 3) = -1(x - 1)$

=> $y - 3 = -x + 1$

=> $x + y = 4$

=> Ans - (A)

Question 67

The measures of the four angles of a quadrilateral are in the ratio 1:2:3:4. What is the measure of the biggest angle?

A 36°

B 144°

C 72°

D 108°

Answer: B

Explanation:

Let the four angles of the quadrilateral be $x, 2x, 3x$ and $4x$

Sum of internal angles of a quadrilateral = 360°

=> $x + 2x + 3x + 4x = 360°$

=> $10x = 360°$

=> $x = \frac{360}{10} = 36°$

$\therefore$ Biggest angle = $4x = 4 \times 36 = 144°$

=> Ans - (B)

Question 68

A tent is to be built in the form of a cylinder of radius 5 m surmounted by a cone of the same radius. If the height of the cylindrical part is 6 m and slant height of the conical part is 10 m, how much canvas will be required to build the tent? Allow 20% extra canvas for folding and stitching. (Take π = 22/7)

A 829.72 sq mts

B 414.86 sq mts

C 1244.58 sq mts

D 207.43 sq mts

Answer: B

Explanation:

Radius of cone = Radius of cylinder = r = 5 m

Height of cylinder = h = 6 m

Slant height of cone = l = 10 m

Canvas required = Curved surface area of cylinder + Curved surface area of cone

= $2\pi rh + \pi rl = (\pi r)(2h + l)$

= $\left(\frac{22}{7} \times 5\right)(2 \times 6 + 10)$

= $\frac{110}{7} \times 22 = 345.71 \ m^2$

Also, 20% extra canvas is required for folding and stitching

∴ Total canvas required = $\frac{120}{100} \times 345.71$

= $1.2 \times 345.71 \approx 414.86 \ m^2$

=> Ans - (B)

Question 69

The sum of the digits of a 2-digit number is 8. If we add 36 to the number, the new number obtained is a number formed by interchange of the digits. What is the number?

A 26

B 62

C 34

D 43

Answer: A

Explanation:

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

=> Number = $10x + y$

Sum of digits, $x + y = 8$ ------------(i)

According to question, => $10x + y + 36 = 10y + x$

=> $9y - 9x = 36$

=> $y - x = \frac{36}{9} = 4$ ------------(ii)

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

=> $(y + y) = (8 + 4)$

=> $y = \frac{12}{2} = 6$

Substituting it in equation (i), => $x = 8 - 6 = 2$

∴ Number = 26

=> Ans - (A)

Question 70

In which of the following quadrilaterals both pairs of opposite sides are parallel?

A Rhombus

B Cyclic quadrilateral

C Kite

D Isosceles trapezium

Answer: A

Explanation:
In an isosceles trapezium only one pair of opposite sides is parallel, while in a cyclic quadrilateral and a kite, none of the opposite sides is parallel, but in a rhombus both pairs of opposite sides are parallel.

=> Ans - (A)

Question 71

A bank offers 10% compound interest per half year. A customer deposits Rs. 5200 each on 1st January and 1st July of a year. At the end of the year, the amount he would have profit by way of interest is:

A Rs 3224

B Rs 1612

C Rs 806

D Rs 403

Answer: B

Explanation:

The interest earned on 5200 from Jan to July will be $5200 \times 10 \times \frac{1}{100}$ (Since rate of interest is 10 % per 6 months)

= $52 \times 10 = 520$

Hence, 5200 will amount to 5720. He adds another 5200 to this. So the net amount becomes 5200 + 5720 = 10920

Now interest earned on this amount in a period of 6 months will be $10920 \times 10 \times \frac{1}{100} = 1092$

So the final amount will be 10920 + 1092 = 12012

Total money he deposited = 5200 + 5200 = 10400

Hence, amount earned via interest = 12012 - 10400 = 1612

=> Ans - (B)

Question 72

Read the data and answer the questions ?

	Boys	Girls
Medical	25	40
Engineering	60	25

What percent of the students who choose engineering are girls ?

A 41.67

B 16.67

C 38.46

D 29.41

Answer: D

Explanation:

Number of girls who chose engineering = 25

Total number of engineers = 60 + 25 = 85

=> Percent of the girls who choose engineering = $\frac{25}{85} \times 100$

= $\frac{500}{17} = 29.41\%$

=> Ans - (D)

Question 73

Read the data answer the given questions

	Cumulative production
January	690
February	1000
March	1300
April	1760
May	2430
June	2720

How many cars were manufactured in the month of April and May

A 760

B 960

C 1130

D 4190

  Answer: C

Explanation:

Number of cars produced in :

January = 690

February = 1000 - 690 = 310

March = 1300 - 1000 = 300

April = 1760 - 1300 = 460

May = 2430 - 1760 = 670

June = 2720 - 2430 = 290

=> Number of cars that were manufactured in the month of the April and may = 460 + 670 = 1130

=> Ans - (C)

Question 74

Read the data and answer the questions

Day of the week	Distance jogged (in km)
Monday	5
Tuesday	4.5
Wednesday	0.5
Thursday	0.5
Friday	0.5
Saturday	4
Sunday	1

If 400 calories are burned by Jogging 5km, how many calories were burnt in the given week?

A 1280 calories

B 1330 calories

C 1230 calories

D 1180 calories

   Answer: A

Explanation:

Total distance jogged in entire week

= 5 + 4.5 + 0.5 + 0.5 + 0.5 + 4 + 1 = 16 km

Calories burned after jogging 5 km = 400 calories

=> Calories burned after jogging 16 km = $\frac{400}{5} \times 16$

= $80 \times 16 = 1280$ calories

=> Ans - (A)

Question 75

Read the given data and answer the questions

Items	Yearly expence in lakhs
Raw Materilas	10
Labour	3
Rent	4
Interest	2
Taxes	1

Labour and interest are what percent of total expenses?

A 10.5 percent

B 17.75 percent

C 25 percent

D 32.25 percent

   Answer: C

Explanation:

Yearly expense in labour and interest (in lakhs) = 3 + 2 = 5

Total expenses (in lakhs) = 10 + 3 + 4 + 2 + 1 = 20

=> Required % = $\frac{5}{20} \times 100$

= $\frac{100}{4} = 25\%$

=> Ans - (C)

English

Question 76

**Select the synonym of
succulent**

A   torrid

B   luscious

C   arid

D   bare

   Answer: B

Question 77

Select the word with the correct spelling.

A   stamppede

B   easemant

C   cul-de-sac

D   ripostes

   Answer: D

Question 78

**In the following question, out of the four alternatives, select the alternative which is the best substitute of the phrase.
a state of stunned confusion or bewilderment**

A   snarl

B   maze

C daze

D paradox

Answer: C

Question 79

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 majestic Himalayas are revered, for from them ....the life sustaining river, mother Ganga.

A derives

B exudes

C emanates

D radiates

Answer: C

Question 80

Improve the bracketed part of the sentence.
The kids are happy. They (were playing) in the pool since noon.

A are playing

B played

C have been playing

D no improvement

Answer: C

Question 81

Select the synonym of
snarl

A growl

B empathy

C accord

D   amity

    Answer: A

Question 82

In the following question, out of the four alternatives, select the alternative which is the best substitute of the phrase.
To delay or prevent someone or something by obstructing them

A   to perturb

B   to impede

C   to irk

D   to faze

    Answer: B

Question 83

In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the idiom/phrase.
By the seat of one's pants

A   When one is saved in the nick of time

B   Your future depends on what choices you make now

C   To do it using only one's own experience and judgment

D   Nothing worthwhile can be achieved if you sit in one place

    Answer: C

Question 84

Rearrange the parts of the sentence in correct order
The pesticides
P-are more harmful than
Q-those used in many other parts of the world
R-used in India

A   RQP

B   PQR

C RPQ

D QRP

Answer: C

Question 85

Improve the bracketed part of the sentence. The sink is leaking, we had better (send for) a plumber.

A be sending for

B been sending for

C send off

D no improvement

Answer: D

Question 86

Select the antonym of
panacea

A malady

B cure

C elixir

D nostrum

Answer: A

Question 87

In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the idiom/phrase.
Discretion is the greater part of valour

A To be brave in any situation

B Caution is preferable to rash bravery

C A genuinely brave person is always humble

D If you are over-cautious then you cannot achieve great things

Answer: B

Question 88

Select the antonym of
cameo

A trinket

B gem

C bauble

D plain

Answer: D

Question 89

Rearrange the parts of the sentence in correct order
The last issue
P-can bend policy by virtue of its control over its users
Q-how a powerful monopoly
R-we need to examine is

A QRP

B QPR

C PRQ

D RQP

Answer: D

Question 90

Select the word with the correct spelling.

A ceramix

B bulwaark

C adjourns

D studiuos

Answer: C

Question 91

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

A   renounced

B   deserted

C   neglected

D   relinquished

   Answer: A

Question 92

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 emperor was impressed with the singer and asked, 'What can I do for you?'

A   The emperor impressed with the singer and asked that what he could do for him.

B   The emperor was impressed with the singer and asked what he could do for him.

C   The emperor impressed with the singer asked what could be done for him.

D   The emperor was impressed with the singer and asked what could be done for him.

   Answer: B

Question 93

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'.
Vicky is the one who(A)/always finds faults with(B)/whatever Priya does.(C)/No error(D)

A   Vicky is the one who

B   always finds faults with

C   whatever Priya does.

D   No error

   Answer: D

Question 94

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 online shopping site lowered the prices.

A   Lowering of the prices was done by the online shopping site.

B   The prices were lowered by the online shopping site.

C   The prices had been lowered by the online shopping site.

D   The prices have been lowered by the online shopping site.

   Answer: B

Question 95

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'.
Some are born great.(A)/Some achieve greatness(B)/and some had greatness thrust on them.(C)/No error(D)

A   A

B   B

C   C

D   D

   Answer: C

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.
Irony. ....word captures our response to the ongoing nationwide drought in more ways than one. We have woken.................the reality of drought a full six months after the end of monsoon. After waking up, we focus ....the drinking water.................in urban centres and not the multidimensional crisis of life and livelihood in ....hinterland.

Question 96

Irony. ....word captures our response to the ongoing nationwide drought

A   This one

B That one

C One

D A

Answer: A

Question 97

We have woken ....the reality of drought

A up

B up to

C to

D for

Answer: B

Question 98

After waking up, we focus ....

A on

B in

C into

D upon

Answer: A

Question 99

drinking water ....in urban centres

A dilemma

B trouble

C impasse

D crisis

Answer: D

Question 100

multidimensional crisis of life and livelihood in ....hinterland

A   rustic

B   village

C   rural

D   urban

Answer: C