Exampapers247

SSC CHSL 11 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. Rabi Crop : Oat : : Kharif Crop : ?

A Mustard

B Wheat

C Barley

D Paddy

Answer: D

Explanation:
Expression = Rabi Crop : Oat : : Kharif Crop : ?

Oat (cereals) comes under the category of Rabi crops, and among the given options *paddy* is a Kharif Crop.

=> Ans - (D)

Question 2

Select the related word/letters/number from the given alternatives.
CM : P : : PM : ?

A F

B E

C D

D C

Answer: D

Explanation:
Expression = CM : P : : PM : ?

The pattern followed is :

(3) (13) (16) (16) (13) (3 or 29)
C M → P P M → C

Thus, PM : **C**

=> Ans - (D)

Question 3

Select the related word/letters/number from the given alternatives.
JN : TB : : PB : ?

A TD

B FD

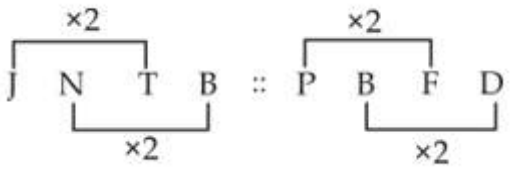
C RS

D TV

Answer: B

Explanation:
Expression = JN : TB : : PB : ?

The pattern followed is that the numerical value of the alphabets is multiplied by 2.



Thus, PB : **FD**

=> Ans - (B)

Question 4

Select the related word/letters/number from the given alternatives.
7 : 56 : : 9 : ?

A 65

B 90

C 81

D 70

Answer: B

Explanation:
Expression = 7 : 56 : : 9 : ?

The pattern followed is = $x : x(x+1)$

Eg :- $7 : 7(7+1) = 7 : 56$

Similarly, $9 \times (9+1) = 9 \times 10 = 90$

=> Ans - (B)

Question 5

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

A Banyan

B Pine

C Spruce

D Fir

Answer: A

Explanation:
Except Banyan other three belong to the pinaceae family, i.e. tree and shrubs, hence Banyan is the odd one.

=> Ans - (A)

Question 6

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

A MG

B QK

C VN

D UO

Answer: C

Explanation:
(A) : M (-6 letters) = G

(B) : Q (-6 letters) = K

(C) : V (**-8** letters) = N

(D) : U (-6 letters) = O

=> Ans - (C)

Question 7

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

A 4267

B 2498

C 2739

D 5496

Answer: B

Explanation:
The product of last digits is equal to the first two digits, but $9 \times 8 \neq 24$, hence 2498 is the odd one out.

=> Ans - (B)

Question 8

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

A 8912

B 3469

C 5555

D 6734

Answer: B

Explanation:
The sum of digits of the numbers is 20, but $3 + 4 + 6 + 9 = 22$, hence 3469 is the odd one out.

=> Ans - (B)

Question 9

A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series. Troposphere, Stratosphere, Mesosphere, ?

A Exosphere

B Thermosphere

C Tropopause

D Ozone Layer

Answer: B

Explanation:
Layers of earth's atmosphere (inner to outer).

= Troposphere -> Stratosphere -> Mesosphere -> Thermosphere

=> Ans - (B)

Question 10

A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series. AZ, BY, CX, ?

A WD

B DW

C DE

D DX

Answer: B

Explanation:
Expression : AZ, BY, CX, ?

The pattern followed in each letters of the terms is :

1st letter : A (+1 letter) = B (+1 letter) = C (+1 letter) = D

2nd letter : Z (-1 letter) = Y (-1 letter) = X (-1 letter) = W

Thus, missing term = **DW**

=> 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. DM, EN, FO, ?

A FG

B HI

C GP

D HP

Answer: C

Explanation:
Expression : DM, EN, FO, ?

The pattern followed in each letter of the terms is :

1st letter : D (+1 letter) = E (+1 letter) = F (+1 letter) = G

2nd letter : M (+1 letter) = N (+1 letter) = O (+1 letter) = P

Thus, missing term = **GP**

=> 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.
79, 159, 199, 219, ?

A 229

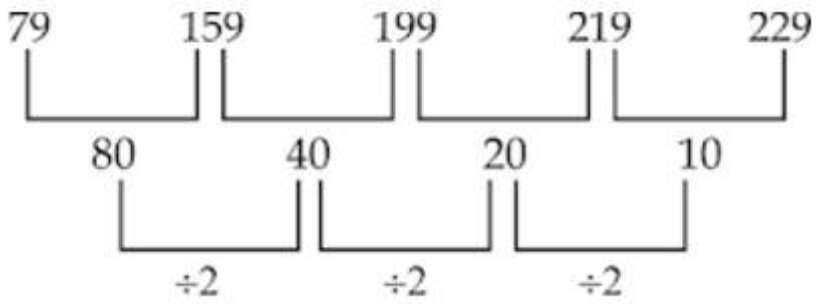
B 234

C 239

D 222

Answer: A

Explanation:
The pattern followed is :



Missing number = **229**

=> 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) Some polynomials are linear equations.
(II) Some linear equations are quadratic.
Conclusion:
(I) Polynomials are quadratic.
(II) Linear equations are quadratic.

A Conclusion I follows

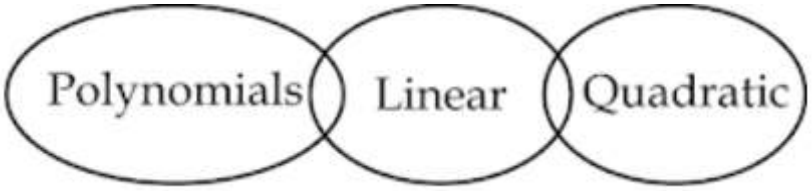
B Conclusion II follows

C Neither I nor II follows

D Both I and II follows

Answer: C

Explanation:
The venn diagram for above statements is :



Conclusion:

(I) Polynomials are quadratic = false
(II) Linear equations are quadratic = false

Thus, neither I nor II follows

=> Ans - (C)

Question 14

The age of A is three times the age of B. What is the ratio of the age of B to the age of A?

A 1:3

B 1:4

C 1:2

D 3:1

Answer: A

Explanation:
Let B's age = x years

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

$\therefore$ Ratio of the age of B to the age of A = $\frac{x}{3x} = 1:3$

=> Ans - (A)

Question 15

Arrange the given words in the sequence in which they occur in the dictionary.
i. Attribute
ii. Attenuation
iii. Attain
iv. Attention

A iii, iv, ii, i

B iv, i, iii, ii

C i, iii, ii, iv

D i, ii, iii, iv

Answer: A

Explanation:
As per the order of dictionary :

= Attain -> Attention -> Attenuation -> Attribute

≡ iii, iv, ii, i

=> Ans - (A)

Question 16

In a certain code language, "FAILURE" is written as "FRULIAG". How is "SUCCESS" written in that code language?

A TSECCUT

B SSECCUS

C TSECCUS

D TSECCUU

Answer: A

Explanation:
"FAILURE" is written as "FRULIAG"

The pattern followed is :

Similarly, for SUCCESS :

=> Ans - (A)

Question 17

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

?	113	161
2	7	6
3	4	5

A 31

B 36

C 280

D 161

Answer: A

Explanation:
In each column, the first number is obtained by adding the cube of last number and square of second number.

Eg :- $4^3 + 7^2 = 64 + 49 = 113$

$5^3 + 6^2 = 125 + 36 = 161$

Similarly, $3^3 + 2^2 = 27 + 4 = 31$

=> Ans - (A)

Question 18

If "A" denotes "added to", "B" denotes "divided by", "C" denotes "multiplied by" and "D" denotes "subtracted from", then 154 B 11 C 6 A 6 D 27= ?

A 60

B 63

C 33

D 64

Answer: B

Explanation:
Expression : 154 B 11 C 6 A 6 D 27= ?

$\equiv 154 \div 11 \times 6 + 6 - 27$

= $(14 \times 6) - 21$

= $84 - 21 = 63$

=> Ans - (B)

Question 19

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

A trts

B rtst

C trst

D tsss

Answer: C

Explanation:
The pattern followed is that in groups of 3, the terms 'str' and its reverse are alternatively repeated

= s**tr** **rt**s s**tr**

=> Ans - (C)

Question 20

In a compass, west direction is shown as south. As per the compass, which direction should a man go to, if he wishes to move towards the east?

A North

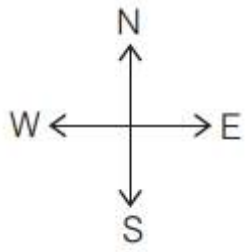
B South

C East

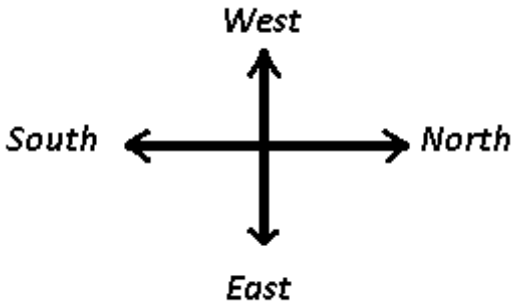
D West

Answer: A

Explanation:
Directions in a normal compass :



In the given compass, west direction is shown as south, thus the compass is aligned 90° to the right :



Thus, the man should go towards north if he wishes to move towards east.

=> Ans - (A)

Question 21

A word is represented by only one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets as shown in the given two matrices. The columns and rows of Matrix-I are numbered from 0 to 4 and that of Meths.!! 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, I' can be represented by 32, 42 etc. and 'M' can be represented by 88, 68 etc. Similarly, you have to identify the set for the word 'GAIN'.

Matrix - I

	0	1	2	3	4
0	A	N	H	H	E
1	D	A	N	L	I
2	E	G	A	N	E
3	E	L	F	A	N
4	L	G	F	N	E

Matrix - II

	5	6	7	8	9
5	I	R	B	T	O
6	R	I	T	M	S
7	R	T	G	I	O
8	T	S	G	M	I
9	S	T	G	M	O

A 21, 00, 89, 44

B 77, 22, 66, 43

C 87, 33, 23, 12

D 97, 11, 88, 01

Answer: B

Explanation:
(A) : 21, 00, 89, 44 = GAIE

(B) : 77, 22, 66, 43 = **GAIN**

(C) : 87, 33, 23, 12 = GANN

(D) : 97, 11, 88, 01 = GAMN

=> Ans - (B)

Question 22

Akhil is the maternal uncle of Rashmi. Rashmi is the daughter of Ramesh. How is Ramesh related to Akhil?

A Brother-in-law

B Brother

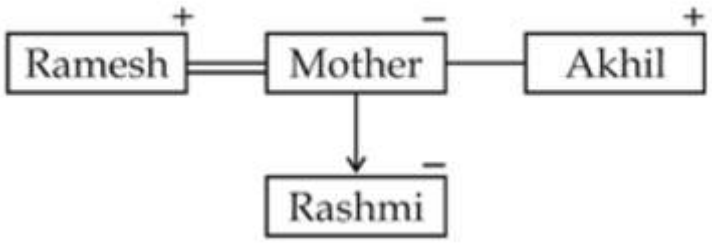
C Father

D Cousin

Answer: A

Explanation:
Akhil is the maternal uncle of Rashmi. Rashmi is the daughter of Ramesh.

Relation is :

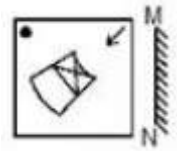


Thus, Ramesh is brother-in-law of Akhil.

=> Ans - (A)

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 

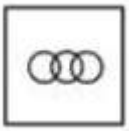
D 

Answer: D

Question 24

Identify the diagram that best represents the relationship among the given classes. Primary colors, Red, Blue, Magenta

A 

B 

C 

D 

Answer: B

Question 25

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

A 

B 

C 

D 

Answer: A

General Awareness

Instructions
For the following questions answer them individually

Question 26

Which of the following is also known as the brain of the computer?

A CPU

B ALU

C Motherboard

D Keyboard

Answer: A

Question 27

Soda water was invented by

A Tivadar Puskas

B Joseph Priestley

C Petrache Poenaru

D James Leonard Plimpton

Answer: B

Question 28

The outermost layer of skin is

A Epidermis

B Dermis

C Tissues

D Hypodermis

Answer: A

Question 29

Which of the following plants have root nodules?

A Leguminous plants

B Parasitic plants

C Epiphytic Plants

D Aquatic Plants

Answer: A

Question 30

Earth-worms belongs to the phylum

A Protozoa

B Cnidaria

C Annelida

D Mollusca

Answer: C

Question 31

The mass of proton and mass of .....is same.

A Neutron

B Electron

C Isoprone

D Alpha particle

Answer: A

Question 32

Using which of the following processes can one separate a solute from its solution?

A Sedimentation

B Evaporation

C Filtration

D Condensation

Answer: B

Question 33

Jantar Mantar is in

A Rajasthan

B Assam

C Bihar

D Gujarat

Answer: A

Question 34

Salzburg Festival is held in which country?

A Italy

B Austria

C Australia

D Spain

Answer: B

Question 35

If price of an article decreases from Rs. 25 to Rs. 20, quantity demanded increases from Q1 units to 1500 units. If point elasticity of demand is -1.25, find Q1?

A 900 units

B 1200 units

C 1800 units

D 2000 units

Answer: B

Question 36

Birth rate in a country is defined as

A Number of births per 100 in 1 year

B Number of births per 1000 in 1 year

C Number of births per km of area in 1 year

D Number of births per 100 km of area in 1 year

Answer: B

Question 37

Where is "The Geysers", the world's largest geothermal field, containing a complex of 22 geothermal power plants, located?

A Rio

B New Orleans

C Moscow

D San Francisco

Answer: D

Question 38

Bauxite is an ore/mineral of

A Aluminium

B Beryllium

C Lead

D Tin

Answer: A

Question 39

The real name of Dilip Kumar is .....

A Yusuf Khan

B Dilip Kumar

C Mohammad Kaif

D Ravi Bajaj

Answer: A

Question 40

The Gobi Desert is one of the largest deserts on Earth. A part of it lies in which of the following countries?

A Australia

B Saudi Arabia

C Mongolia

D Madagascar

Answer: C

Question 41

Which is the largest continent in the world?

A Africa

B North America

C South America

D Asia

Answer: D

Question 42

Aurangzeb put his father .....under house arrest in Agra Fort.

A Humayun

B Shah Jahan

C Akbar

D Bahadur Shah

Answer: B

Question 43

The English defeated the .....in the battle of Wandiwash.

A German

B French

C Indians

D Americans

Answer: B

Question 44

Pulitzer prize is given in the field of .....

A Journalism

B Sports

C Medicine

D Music

Answer: A

Question 45

What is the unit of electric resistance?

A Dyne

B Pascal

C Joule

D Ohms

Answer: D

Question 46

Who invented Television?

A J L Baird

B Aristotle

C James Clerk Maxwell

D Nikola Tesla

Answer: A

Question 47

How many members of the Rajya Sabha are elected every two years?

A all

B one fourth

C half

D one third

Answer: B

Question 48

The Indian Constitution declares India as all of the following, except

A communist

B democratic republic

C socialist

D secular

Answer: A

Question 49

Shaquille O'Neal is associated with which Sport?

A Lawn Tennis

B Basketball

C Formula One

D WWE

Answer: B

Question 50

Ramcharitmanas is an epic poem written in which language?

A Santali

B Munda

C Awadhi

D Sanskrit

Answer: C

English

Instructions
For the following questions answer them individually

Question 51

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

A To put yourself into a problem

B To make fateful decision

C To sign the deal

D To get married

Answer: D

Question 52

Select the synonym of carnal

A chaste

B sensual

C decent

D spiritual

Answer: B

Question 53

Select the antonym of intrinsic

A elemental

B innate

C connate

D accquired

Answer: D

Question 54

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.
Providence smiles .....those who are diligent.

A with

B in

C upon

D over

Answer: C

Question 55

Select the word with the correct spelling.

A chaastity

B marothon

C reasert

D toxicity

Answer: D

Question 56

Improve the bracketed part of the sentence.
When I last saw Ravi, he (had been running) to catch his bus.

A ran

B was running

C had run

D no improvement

Answer: B

Question 57

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'.
If you are in the wrong gears (A)/the car won't be (B)/able to climb the hill.(C)/No error(D)

A A

B B

C C

D D

Answer: A

Question 58

In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the idiom/phrase.
The ball is in your court

A It is up to you to make the next move

B You have got a fantastic opportunity

C You will be blamed for crimes that you have not committed

D You have been put into a dilemma.

Answer: A

Question 59

Improve the bracketed part of the sentence.
I would love (to availing) a short holiday, and go for an overnight trek.

A to avail myself of

B to avail of

C to avail myself

D no improvement

Answer: C

Question 60

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.
Mariam was writing a note to her boss.

A A note was written to her boss by Mariam.

B A note was wrote by Mariam to her boss.

C A note was being written by Mariam to her boss.

D A note was written by Mariam to her boss.

Answer: C

Question 61

Select the synonym of incinerate

A parch

B moderate

C ignite

D quench

Answer: C

Question 62

Select the antonym of ogle

A leer

B gaze

C ignore

D gawk

Answer: C

Question 63

Select the word with the correct spelling.

A snatched

B litigat

C abhored

D variabely

Answer: A

Question 64

In the following question, out of the four alternatives, select the alternative which is the best substitute of the phrase.
To harass someone persistently to do something.

A Iconoclast

B Dote

C Neurotic

D Importune

Answer: D

Question 65

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 baby looked.....the toffee with greedy eyes.

A upon

B into

C on

D at

Answer: D

Question 66

In the following question, out of the four alternatives, select the alternative which is the best substitute of the phrase.
A short statement expressing a general truth.

A Maxim

B Infer

C Drum

D Pander

Answer: A

Question 67

Rearrange the parts of the sentence in correct order.
It is a truth universally
P-acknowledged that a single
Q-man in possession of a good
R-fortune must be in want of a wife

A QRP

B PQR

C RPQ

D QPR

Answer: B

Question 68

Rearrange the parts of the sentence in correct order.
Your absence has
P-gone through me Q-through a needle R-like thread

A PRQ

B PQR

C QPR

D RPQ

Answer: A

Question 69

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'.
This is the sports person(A)/whom I think has won(B)/the much coveted prize.(C)/ No error(D)

A A

B B

C C

D D

Answer: B

Question 70

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.
Abhay said to Veena, " Are you coming to the Reception?"

A Abhay told Veena if she was coming to the Reception.

B Abhay asked Veena if she will be coming to the Reception.

C Abhay asked Veena if she was coming to the Reception.

D Abhay asked Veena whether she was coming to the Reception.

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.
In view of last year's H1N1 attack and prevailing .....(1).....weather conditions, the health department officials .....(2).....that the virus will turn more active by January end. In-charge, Integrated Disease ..... (3).....Programme (IDSP), Dr Shah, said, "Virus is still active, but not in a major way. In coming months, it is likely to become more active. Last year too, virus had claimed lives in January and February. Therefore, we are .....(4).....as coming months might
.....(5).....a challenge."

Question 71

(1)

A erratic

B weird

C dicey

D unstable

Answer: A

Question 72

(2)

A expect

B expects

C were expecting

D are expecting

Answer: D

Question 73

(3)

A management

B control

C surveillance

D eradication

Answer: C

Question 74

(4)

A vigilant

B open to

C on toes

D impulsive

Answer: A

Question 75

(5)

A show

B pose

C throw

D put up

Answer: B

Mathematics

Instructions
For the following questions answer them individually

Question 76

Mehdi can complete a work in 25 hours. If he is joined by Jahnavi who is 50% more efficient, in what time will they together finish the work?

A 12 hours

B 10 hours

C 3 hours

D 9 hours

Answer: B

Explanation:
Let total work to be done = 50 units

Mehdi's efficiency = $\frac{50}{25} = 2$ units/hr

Jahnavi is 50% more efficient than Mehdi, => Jahnavi's efficiency = $\frac{150}{100} \times 2 = 3$ units/hr

=> Mehdi and Jahanavi 1 day's work = 2 + 3 = 5 units/hr

$\therefore$ Time taken by them to finish the work together = $\frac{50}{5} = 10$ hours

=> Ans - (B)

Question 77

If x + 3 ≤ 4x + 4 and 3(4 - x) - 4 ≥ 2x - 2, then x can take which of the following values?

A 1

B 3

C -1

D -3

Answer: A

Explanation:
Expression 1 : x + 3 ≤ 4x + 4

=> $4x - x \geq 3 - 4$

=> $3x \geq -1$

=> $x \geq \frac{-1}{3}$ ---------(i)

Expression 2 : 3(4 - x) - 4 ≥ 2x - 2

=> $12 - 3x - 4 \geq 2x - 2$

=> $2x + 3x \leq 8 + 2$

=> $5x \leq 10$

=> $x \leq 2$ --------(ii)

Combining inequalities (i) and (ii), we get : $\frac{-1}{3} \leq x \leq 2$

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

=> Ans - (A)

Question 78

In ΔDEF, G and H are points on side DE and DF respectively. GH is parallel to EF. If G divides DE in the ratio 3:2 and HF is 8 cm, then the length of DF is

A 12 cm

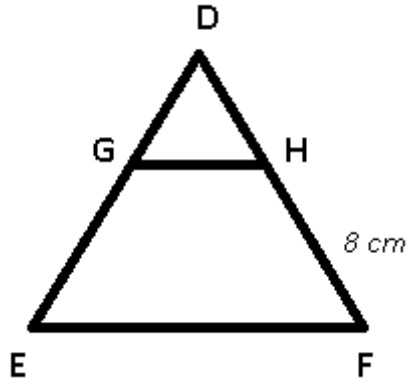
B 20 cm

C 14 cm

D 16 cm

Answer: B

Explanation:



GH is parallel to EF and G divides DE in the ratio 3:2

Let DG = $3x$ cm and GE = $2x$ cm and HF = 8 cm

=> $\frac{DG}{GE} = \frac{DH}{HF}$

=> $\frac{3x}{2x} = \frac{DH}{8}$

=> $DH = \frac{8 \times 3}{2} = 12$ cm

$\therefore$ DF = DH + HF = 12 + 8 = 20 cm

=> Ans - (B)

Question 79

Common factor of $12a^4b^6, 18a^6c^2, 36a^2b^2$ is

A $36a^2$

B $108b^2$

C $6a^2b^2$

D $6a^2$

Answer: D

Explanation:

Factors of :

$12a^4b^6 = (2 \times 6) \times (a^2 \times a^2) \times b^6$

$18a^6c^2 = (3 \times 6) \times (a^2 \times a^4) \times c^2$

$36a^2b^2 = (6 \times 6) \times (a^2) \times b^2$

The common factor in the 3 terms = $6a^2$

=> Ans - (D)

Question 80

The total surface area of a hemisphere is 462 sq cm, what is its curved surface area? (Take π = 22/7)

A 616 sq cms

B 154 sq cms

C 308 sq cms

D 462 sq cms

Answer: C

Explanation:
Let radius of hemisphere = r cm

Total surface area of hemisphere = $3\pi r^2 = 462$ ----------(i)

Multiplying equation (i) by $\frac{2}{3}$

=> $\frac{2}{3} \times 3\pi r^2 = \frac{2}{3} \times 462$

=> Curved Surface area of hemisphere = $2\pi r^2 = 2 \times 154 = 308\ cm^2$

=> Ans - (C)

Question 81

The average revenues of 11 consecutive years of a company is Rs 69 lakhs. If the average of first 6 years is Rs 64 lakhs and that of last 6 years is Rs 76 lakhs, what is the revenue for the 6th year?

A Rs 83 lakhs

B Rs 79 lakhs

C Rs 77 lakhs

D Rs 81 lakhs

Answer: D

Explanation:
Total revenues of 11 years of the company = 69×11 = Rs. 759 lakhs

Total revenue of first 6 years = 64×6 = Rs. 384 lakhs

Total revenue of last 6 years = 76×6 = Rs. 456 lakhs

∴ Revenue of 6th year = (384 + 456) - 759 = 840 - 759

= Rs. 81 lakhs

=> Ans - (D)

Question 82

One of the internal angle of a rhombus is 60° and length of its shorter diagonal is 8 cm. What is the area of the rhombus?

A $64\sqrt{63}sqcm$

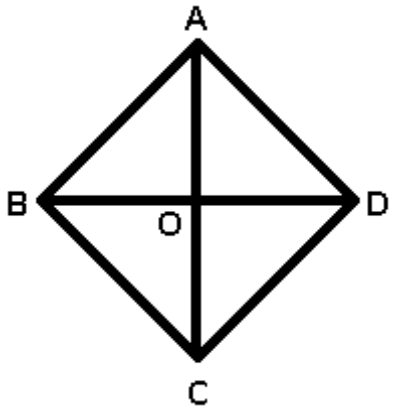
B $32\sqrt{2}sqcm$

C $64\sqrt{2}sqcm$

D $32\sqrt{3}sqcm$

Answer: D

Explanation:



Let $\angle$ A = 60° and BD be the shorter diagonal = 8 cm

The diagonals of a rhombus bisect each other at right angle and also bisect the angles of rhombus.

=> $\angle$ OAD = 30° and OD = 4 cm

In $\triangle$ OAD, $tan(\angle OAD) = \frac{OD}{OA}$

=> $tan(30) = \frac{4}{OA}$

=> $\frac{1}{\sqrt{3}} = \frac{4}{OA}$

=> $OA = 4\sqrt{3}$

Thus, AC = $2 \times 4\sqrt{3} = 8\sqrt{3}$ cm

$\therefore$ Area of rhombus = $\frac{1}{2}\times$ (product of diagonals)

= $\frac{1}{2} \times (AC) \times (BD)$

= $\frac{1}{2} \times 8\sqrt{3} \times 8$

= $32\sqrt{3}\ cm^2$

=> Ans - (D)

Question 83

When a discount of 20% is given on a movie ticket, the profit is 34%. If the discount is 15%, then the profit is

A 49 percent

B 42.375 percent

C 55.625 percent

D 35.75 percent

Answer: B

Explanation:
Let marked price of monthly train pass = Rs. 100

When discount of 20% is given, => Selling price of ticket = $\frac{(100-20)}{100} \times 100 = Rs.80$

Let cost price = $Rs.x$

=> Profit % = $\frac{80-x}{x} \times 100 = 34$

=> $\frac{80-x}{x} = \frac{34}{100} = \frac{17}{50}$

=> $4000 - 50x = 17x$

=> $17x + 50x = 67x = 4000$

=> $x = \frac{4000}{67} =$ Rs. 59.70

If discount is 15%, => Selling price = $\frac{(100-15)}{100} \times 100 = Rs.85$

=> Profit % = $\frac{85-59.70}{59.70} \times 100$

= $\frac{2530}{59.70} \approx 42.375\%$

=> Ans - (B)

Question 84

The price of an article is cut by 7%, to restore it to its original value, the new price must be increased by

A 7 percent

B 33.77 percent

C 7.53 percent

D 63.75 percent

Answer: C

Explanation:
Let the original price of the article = Rs. 100

If the price is cut by 7%, => New price = $\frac{100-7}{100} \times 100 = Rs.93$

To restore to its original value the new price must be increased by = $\frac{100-93}{93} \times 100$

= $\frac{700}{93} = 7.526 \approx 7.53\%$

=> Ans - (C)

Question 85

A bag has Rs12.9 in the form of 1 rupee, 50 paise and 10 paise coins in the ratio of 3:2:3. How many 50 paise coins are there in the bag?

A 9

B 6

C 12

D 3

Answer: B

Explanation:
Let the number of 1-rupee, 50-paise and 10-paise coins be $3x$, $2x$ and $3x$ respectively.

Total amount in the bag = Rs. 12.9

=> $(1 \times 3x) + (\frac{50}{100} \times 2x) + (\frac{10}{100} \times 3x) = 12.9$

=> $3x + x + \frac{3x}{10} = 12.9$

=> $\frac{30x+10x+3x}{10} = 12.9$

=> $43x = 12.9 \times 10 = 129$

=> $x = \frac{129}{43} = 3$

$\therefore$ Number of 50 paise coins = $2x = 2 \times 3 = 6$

=> Ans - (B)

Question 86

Which of the following equations has the sum of its roots as 11?

A $x^2 - 11x + 18 = 0$

B $x^2 - 7x + 10 = 0$

C $x^2 + 2x - 26 = 0$

D $x^2 + 5x - 6 = 0$

Answer: A

Explanation:
Sum of roots in an equation : $ax^2 + bx + c = 0$ is $-\frac{b}{a}$

(A) : $x^2 - 11x + 18 = 0$

=> Sum of roots = $-\frac{-11}{1} = 11$

(B) : $x^2 - 7x + 10 = 0$

=> Sum of roots = $-\frac{-7}{1} = 7$

(C) : $x^2 + 2x - 26 = 0$

=> Sum of roots = $-\frac{2}{1} = -2$

(D) : $x^2 + 5x - 6 = 0$

=> Sum of roots = $-\frac{5}{1} = -5$

=> Ans - (A)

Question 87

1/(secA + tanA) is equal to

A cosecA - cotA

B sinA - cosA

C secA - tanA

D sinA + cosA

Answer: C

Explanation:
Expression : 1/(secA + tanA)

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

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

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 88

tan(A/2) is equal to

A cosecA + cotA

B secA - cotA

C cosecA - cotA

D secA + cotA

Answer: C

Explanation:
Using double angle formula, we know that $cos(2\theta) = cos^2\theta - sin^2\theta$

=> $cos(2\theta) = (1 - sin^2\theta) - sin^2\theta$

=> $cos(2\theta) = 1 - 2sin^2\theta$

Replacing θ by $\frac{A}{2}$, we get :

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

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

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

=> $sin(\frac{A}{2}) = \sqrt{\frac{(1-cosA)}{2}}$

Similarly, => $cos(\frac{A}{2}) = \sqrt{\frac{(1+cosA)}{2}}$

Now, to find : $tan(\frac{A}{2})$

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

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

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

= $\sqrt{\frac{1-cosA}{1+cosA}}$

= $\sqrt{\frac{1-cosA}{1+cosA} \times \frac{1-cosA}{1-cosA}}$

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

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

= $cosecA - cotA$

=> Ans - (C)

Question 89

If $12x = 19^2 - 11^2$, what is the value of x?

A 20

B 17

C 13

D 11

Answer: A

Explanation:
Expression : $12x = 19^2 - 11^2$

=> $12x = (19 - 11)(19 + 11)$

=> $12x = (8)(30)$

=> $x = \frac{8 \times 30}{12}$

=> $x = 2 \times 10 = 20$

=> Ans - (A)

Question 90

What is the value of sec -2π/3 ?

A -2

B 2

C $\frac{2}{\sqrt{3}}$

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

Answer: A

Explanation:
Expression : sec -2π/3

$\because sec(-x) = sec(x)$

=> $sec(\frac{-2\pi}{3}) = sec(\frac{2\pi}{3})$

= $sec(\pi - \frac{\pi}{3}) = -sec(\frac{\pi}{3})$

= -2

=> Ans - (A)

Question 91

If (1/4 of x) - (4/5 of 6/7) equals - 9/7, then value of x is

A -12

B -2.4

C -3.6

D -14

Answer: B

Explanation:
According to ques,

=> $\left(\frac{1}{4} \times x\right) - \left(\frac{4}{5} \times \frac{6}{7}\right) = \frac{-9}{7}$

=> $\frac{x}{4} - \frac{24}{35} = \frac{-9}{7}$

=> $\frac{x}{4} = \frac{24}{35} - \frac{9}{7}$

=> $\frac{x}{4} = \frac{24-45}{35} = \frac{-3}{5}$

=> $x = \frac{-3}{5} \times 4 = -2.4$

=> Ans - (B)

Question 92

To cover a distance of 333 km in 2 hours by a car, what should be the average speed of the car (in meter/second)?

A 166.5

B 46.25

C 83.25

D 92.5

Answer: B

Explanation:
The car covers 333 km in 2 hours

Speed of car (in km/hr) = $\frac{333}{2} = 166.5$ km/hr

=> Speed in m/s = $166.5 \times \frac{5}{18}$

= $5 \times 9.25 = 46.25$ m/s

∴ In 1 second, it travels 46.25 metres

=> Ans - (B)

Question 93

10% discount is offered on an item. By applying a promo code the customer wins 20% cash back. What is the effective discount?

A 33.6 percent

B 30 percent

C 22 percent

D 28 percent

Answer: D

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

Amount after 10 % discount = $100x - \frac{10}{100} \times 100x$

= $100x - 10x = Rs.90x$

Selling price after 20 % cashback = $90x - \frac{20}{100} \times 90x$

= $90x - 18x = Rs.72x$

=> Total discounted amount = $100x - 72x = Rs.28x$

∴ Effective discount = $\frac{28x}{100x} \times 100 = 28\%$

=> Ans - (D)

Question 94

Δ ABC and Δ DEF are similar triangles. Length of AB is 10 cm and length of the corresponding side DE is 6 cm. What is the ratio of Perimeter of ΔABC to ΔDEF?

A 5:3

B 3:5

C 25:9

D 9:25

Answer: A

Explanation:
It is given that ΔAB $\sim$ ΔDEF

Also, length of AB = 10 cm and length of the corresponding side DE = 6 cm

=> Ratio of Perimeter of ΔABC : Perimeter of ΔDEF = Ratio of corresponding sides = AB : DE

= $\frac{10}{6} = \frac{5}{3}$

∴ The required ratio is 5 : 3

=> Ans - (A)

Question 95

A bank offers 20% compound interest per half year. A customer deposits Rs 7600 each on 1st January and 1st July of a year. At the end of the year, the amount he would have gained from interest is

A Rs 9727

B Rs 2432

C Rs 4864

D Rs 1216

Answer: C

Explanation:
The interest earned on 7600 from Jan to July will be $7600 \times 20 \times \frac{1}{100}$ (Since rate of interest is 5 % per 6 months)

= $76 \times 20 = 1520$

Hence, 7600 will amount to 9120. He adds another 7600 to this. So the net amount becomes 9120 + 7600 = 16,720.

Now interest earned on this amount in a period of 6 months will be $16720 \times 20 \times \frac{1}{100} = 3344$

So the final amount will be 16720 + 3344 = 20064

Total money he deposited = 7600 + 7600 = 15200

Hence, amount earned via interest = 20064 - 15200 = Rs. 4864

=> Ans - (C)

Question 96

At what point does the line 3x + 2y = -12 intercept the Y-axis?

A (0,6)

B (0,-6)

C (-4,0)

D (4,0)

Answer: B

Explanation:
The line $3x + 2y = -12$ will intercept the y-axis at $x = 0$

Thus, substituting value of x in above equation

=> $3(0) + 2y = -12$

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

Thus, the line will intercept y axis at (0,-6)

=> Ans - (B)

Question 97

Refer the below data table and answer the following Question.

	Quantity of Stock	Average Cost (Rs)
Mobile Phones	29	18000
Cameras	22	6000
TVs	63	51000
Refrigirators	45	49000
ACs	27	25000

What is the value of the total stock (in lakh rupees)?

A 67.47

B 674.7

C 149

D 186

Answer: A

Explanation:
Total cost of mobiles = 29 $\times$ 18000 = Rs. 5,22,000

Total cost of Cameras = 22 $\times$ 6000 = Rs. 1,32,000

Total cost of TVs = 63 $\times$ 51000 = Rs. 32,13,000

Total cost of Refrigerator = 45 $\times$ 49000 = Rs. 22,05,000

Total cost of AC = 27 $\times$ 25000 = Rs. 6,75,000

$\therefore$ Total cost = 5,22,000 + 1,32,000 + 32,13,000 + 22,05,000 + 6,75,000 = Rs. 67,47,000

Total cost in lakhs = Rs 67.47 lakhs

=> Ans - (A)

Question 98

Refer the below data table and answer the following Question.

Year	Ratio Import / Export
2011	1.1
2012	1.4
2013	0.7
2014	0.8
2015	0.8

If the imports in 2012 was Rs. 600 crores and the total exports In the years 2012 and 2013 together was Rs. 2400 crores, then the imports in 2013 was?

A 1971

B 429

C 2816

D 1380

Answer: D

Explanation:

Imports in 2012 = Rs. 600 crores

Let Exports in 2012 = Rs. y crores

Ratio of imports and exports in 2012 = 1.4

=> $\frac{600}{y} = 1.4$

=> $y = \frac{600}{1.4} = 428.57$

Total exports In the years 2012 and 2013 together = Rs. 2400 crores

=> Exports in 2013 = Rs. (2400 - 428.57) crores = Rs. 1971.43 crores

Let imports in 2013 = Rs. x crores

Ratio of imports and exports in 2013 = $\frac{x}{1971.43} = 0.7$

=> $x = 1971.43 \times 0.7 = 1380.001 \approx 1380$

$\therefore$ Imports in 2013 was Rs. 1380 crores

=> Ans - (D)

Question 99

Refer the below data table and answer the following Question.

Measured on Birthday	Height of the child (in cms)
4	100
5	105
6	115
7	125
8	135
9	140
10	150
11	160
12	165
13	175
14	180
15	190
16	200

What was the increase in the height of the child from the 7th Birthday to the 11th Birthday?

A 35 cms

B 40 cms

C 45 cms

D 30 cms

Answer: A

Explanation:
Height on 7th birthday = 125 cm

Height on 11th birthday = 160 cm

Increase in height = 160 - 125 = 35 cm

=> Ans - (A)

Question 100

Refer the below data table and answer the following Question.

Deep Sleep	10
Dreaming	25
Light Sleep	10
Extremely Light Sleep	5
Awake	50

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

A 0.7 hours

B 1.2 hours

C 1.7 hours

D 2.3 hours

Answer: B

Explanation:
Total time between 10 pm to 6 am = 8 hours

% time spent in Light sleep or in Extremely light sleep = 10 + 5 = 15%

=> Time spent in Light sleep or in Extremely light sleep = $\frac{15}{100} \times 8$

= $\frac{3 \times 2}{5} = 1.2$ hours

=> Ans - (B)

SSC CHSL 11 Jan 2017 Evening Shift

Reasoning

Instructions
For the following questions answer them individually

Question 1

Select the related word/letters/number from the given alternatives. Luminous intensity : Candela : : Pressure : ?

A Radian

B Newton

C Pascal

D Joule

Answer: C

Explanation:
Candela is the S.I. unit of Luminous intensity, similarly unit to measure pressure is *pascal*.

=> Ans - (C)

Question 2

Select the related word/letters/number from the given alternatives. APPARENT : RENTAPPA : : MUSCULAR : ?

A ULAMMUSC

B ULARMUSC

C UMAMLUSC

D ULARMUCS

Answer: B

Explanation:
Expression = APPARENT : RENTAPPA : : MUSCULAR : ?

The pattern followed is :

Thus, MUSCULAR : **ULARMUSC**

=> Ans - (B)

Question 3

Select the related word/letters/number from the given alternatives. PEON : QRHS : : JOCK : ?

A NFRM

B NFMR

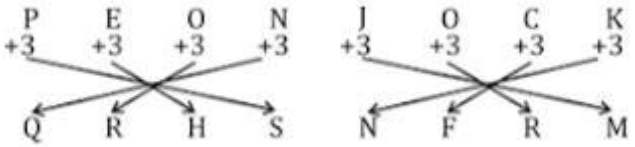
C NEFM

D NFMM

Answer: A

Explanation:
Expression = PEON : QRHS : : JOCK : ?

The pattern followed is :



Thus, JOCK : **NFRM**

=> Ans - (A)

Question 4

Select the related word/letters/number from the given alternatives.
34 : 81 : : 23 : ?

A 8

B 16

C 4

D 12

Answer: A

Explanation:
$34 = 3^4 = 81$
Using the same logic,
$23 = 2^3 = 8.$
Therefore, option A is the right answer.

Question 5

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

A Tetanus

B Syphilis

C Plague

D Malaria

Answer: D

Explanation:
Expect Malaria other three are caused by bacteria, hence it is the odd one out.

=> Ans - (D)

Question 6

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

A QJ

B SH

C LN

D UF

Answer: C

Explanation:
Expect LN other three are set of corresponding opposite letters, hence it is the odd one out.

=> Ans - (C)

Question 7

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

A 5125

B 8564

C 7343

D 6216

Answer: B

Explanation:
The last three digits is the cube of first digit.

$5^3 = 125$, $7^3 = 343$ and $6^3 = 216$

=> Ans - (B)

Question 8

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

A 529

B 549

C 731

D 525

Answer: A

Explanation:
Among the given numbers, only $529 = (23)^2$ is a perfect square, hence it is the odd one out.

=> Ans - (A)

Question 9

A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series. I, V, ? , L

A C

B D

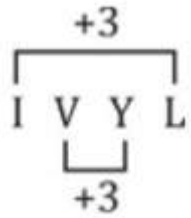
C M

D Y

Answer: D

Explanation:
Expression : I, V, ? , L

The pattern followed is :



Thus, missing term = **Y**

=> Ans - (D)

Question 10

A series is given with one term missing. Choose the correct alternative from the given ones that will complete the series. VWX, BCD, HIJ, ?

A MOQ

B NOP

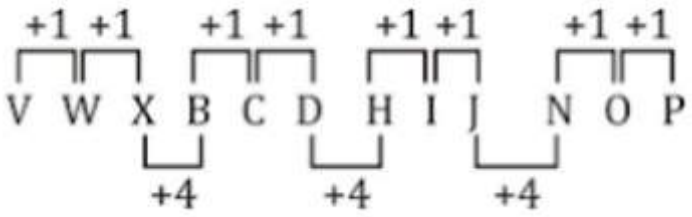
C GHI

D TUV

Answer: B

Explanation:
Expression : VWX, BCD, HIJ, ?

The pattern followed is :



Thus, missing term = **NOP**

=> 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. MN, PQ, TU, YZ, ?

A YZ

B AB

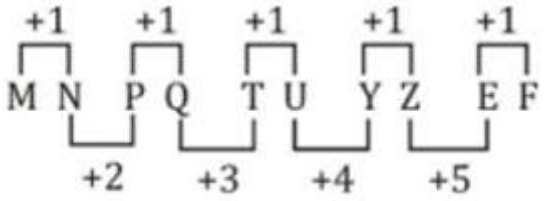
C EF

D EJ

Answer: C

Explanation:
Expression : MN, PQ, TU, YZ, ?

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.
10, 29, 66, 127, ?

A 330

B 115

C 218

D 273

Answer: C

Explanation:
The pattern followed is :

$2^3 + 2$ = 10

$3^3 + 2$ = 29

$4^3 + 2$ = 66

$5^3 + 2$ = 127

$6^3 + 2$ = **218**

=> 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.
Statement:
(I) A graduate is a man.
(II) This thief is a graduate.
Conclusions:
(I) This thief is a man.
(II) Some men are thieves.

A Conclusion I follows

B Conclusion II follows

C Neither I nor II follows

D Both I and II follows

Answer: D

Question 14

The average temperature of a town in the first six days of a month was 410C and the sum of the temperatures of the first five days of the same month was 2010C. What was the temperature on the sixth day of the month?

A 400C

B 450C

C 460C

D 500C

Answer: B

Explanation:
Average temperature of a town in the first six days = $410C$

=> Sum of temperatures in 6 days = $6 \times 410 = 2460C$

Sum of the temperatures of the first five days of the same month = $2010C$

$\therefore$ Temperature on the sixth day of the month = $2460 - 2010 = 450C$

=> Ans - (B)

Question 15

Arrange the given words in the sequence in which they occur in the dictionary.
i. Uniform
ii. Unitary
iii. Umbrella
iv. Unicorn

A iii, i, iv, ii

B iii, iv, ii, i

C iii, iv, i, ii

D iv, i, ii, iii

Answer: C

Explanation:
As per the order of dictionary :

= Umbrella -> Unicorn -> Uniform -> Unitary

$\equiv$ iii, iv, i, ii

=> Ans - (C)

Question 16

In a certain code language, "ARMS" is written as "5467" and "LIAR" is written as "1254". How is "SMALL" written in that code language?

A 76521

B 76512

C 76511

D 76544

Answer: C

Explanation:
The codes for each letter is given :

S -> 7
M -> 6
A -> 5
L -> 1
L -> 1

Thus, SMALL : **76511**

=> Ans - (C)

Question 17

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

15	30	20
6	8	5
84	152	?

A 400

B 150

C 100

D 625

Answer: C

Explanation:
The pattern followed is that the last number in each column is obtained by adding the other two numbers and multiplying the result by 4.

Eg :- $(15 + 6) \times 4 = 21 \times 4 = 84$

$(30 + 8) \times 4 = 38 \times 4 = 152$

Similarly, $(20 + 5) \times 4 = 25 \times 4 = 100$

=> Ans - (C)

Question 18

If "#" means "subtraction", "&" means "division", "@" means "addition" and "%" means "multiplication", then 505 & 5 # 4 @ 20 % 5 = ?

A 211

B 197

C 210

D 195

Answer: B

Explanation:
Expression : 505 & 5 # 4 @ 20 % 5 = ?

$\equiv 505 \div 5 - 4 + 20 \times 5$

= $(\frac{505}{5}) + (-4) + (20 \times 5)$

= $101 - 4 + 100 = 197$

=> Ans - (B)

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 ? MN_O_NN_M_NO

A NMMN

B NMON

C MNOO

D NMMM

Answer: B

Explanation:
The pattern followed is that in groups of 4, the term 'MNNO' is repeated.

= MN**N**O **M**NN**O** M**N**NO

=> Ans - (B)

Question 20

Sonal is standing to the north of Amar and to the west of Mahi. In which direction is Mahi standing with respect to Amar?

A South-West

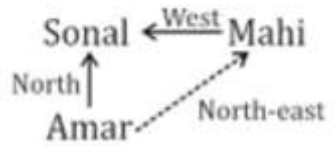
B North-West

C North-East

D South-East

Answer: C

Explanation:
Sonal is standing to the north of Amar and to the west of Mahi.



Thus, Mahi is standing north-east of Amar.

=> Ans - (C)

Question 21

A word is represented by only one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets as shown in the given two matrices. The columns and rows of Matrix-I are numbered from 0 to 4 and that of Matrix-ii are numbered from S to 9. A letter from these matrices can be represented first by its row and next by its column, for example, 'E' can be represented by 68, 99 etc. and 'N' can be represented by 20, 31 etc. Similarly, you have to identify the set for the word 'LION'.

Matrix - I

	0	1	2	3	4
0	G	T	G	D	O
1	I	G	L	F	I
2	N	V	Y	G	F
3	R	N	V	S	E
4	O	L	F	B	L

Matrix - II

	5	6	7	8	9
5	F	N	L	R	I
6	O	I	F	E	O
7	N	R	S	L	F
8	R	L	W	O	Y
9	I	V	E	H	E

A 41, 10, 69, 76

B 86, 69, 04, 41

C 44, 59, 88, 20

D 57, 66, 31, 04

Answer: C

Explanation:
(A) : 41, 10, 69, 76 = LIOR

(B) : 86, 69, 04, 41 = LOOL

(C) : 44, 59, 88, 20 = **LION**

(D) : 57, 66, 31, 04 = LINO

=> Ans - (C)

Question 22

A boy and a girl are playing in a park. The only daughter of the maternal grandfather of the girl, is the sister of the boy's father. How is the boy related to the girl?

A Father

B Grandfather

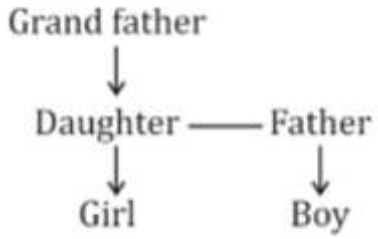
C Son

D Cousin

Answer: D

Explanation:
The only daughter of the maternal grandfather of the girl, is the sister of the boy's father.

Relation is :

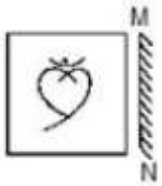


Thus, the boy and girl are cousins.

=> Ans - (D)

Question 23

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



A 

B 

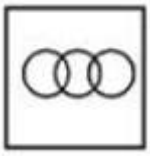
C 

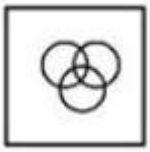
D 

Answer: C

Question 24

Identify the diagram that best represents the relationship among the given classes. Singer, Musician, Businessman

A 

B 

C 

D 

Answer: B

Question 25

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

A 

B 

C 

D 

Answer: A

General Awareness

Instructions
For the following questions answer them individually

Question 26

Which of the following is a volatile memory of a computer?

A Secondary Memory

B Cache memory

C RAM

D ROM

Answer: C

Question 27

Postage Meter was invented by

A Fyodor Pirotsky

B Arthur Pitney

C Fritz Pfleumer

D Stephen Perry

Answer: B

Question 28

Ringworm is a disease caused by

A Fungi

B Bacteria

C Virus

D Flies

Answer: A

Question 29

Mangifera indica is the scientific name of

A Guava

B Mango

C Amla

D Jack fruit

Answer: B

Question 30

Crabs belongs to the phylum

A Mollusca

B Cnidaria

C Arthropoda

D Platyhelminthes

Answer: C

Question 31

Who invented the modern periodic table?

A Faraday

B Mendeleev

C Newton

D Bohr

Answer: B

Question 32

Isobars have .....

A Same mass numbers but different atomic numbers

B Different mass numbers but same atomic numbers

C Same mass and atomic numbers

D Different mass and atomic numbers

Answer: A

Question 33

The famous Brihadeshwara Temple is located in

A Madurai

B Thanjavur

C Kanchipuram

D Rameshwaram

Answer: B

Question 34

Maithili is primarily spoken in which state?

A Bihar

B Assam

C West Bengal

D Meghalaya

Answer: A

Question 35

If hiring an extra worker increases a factory's output from 1000 to 1200 units per day, but the factory has to reduce the price of its product from Rs. 25 to Rs. 24 per unit to sell the additional output, the marginal revenue product of the last worker is

A Rs. 3800

B Rs. 200

C Rs. 4000

D Rs. 100

Answer: A

Question 36

Which law states that bad money drives good money out of circulation?

A Wagner's law

B Grimm's law

C Gresham's law

D Keynes' law

Answer: C

Question 37

There is a protocol signed to reduce production of CFC, known as

A CFC Protocol

B IR Protocol

C Montreal Protocol

D UV Protocol

Answer: C

Question 38

Malachite is an ore/mineral of

A Lead

B Manganese

C Mercury

D Copper

Answer: D

Question 39

Pune was once known as the capital of

A Scindias

B Holkars

C Bhosales

D Peshwas

Answer: D

Question 40

Total number of countries in the world are

A 125

B 165

C 255

D 195

Answer: D

Question 41

Which among the following is false about Earth?

A It is the densest planet.

B It is the fifth largest planet.

C It is also known as red planet.

D It is the third planet from the sun.

Answer: C

Question 42

Anti-apartheid activist .....was imprisoned for 27 years by the South African government in 1962.

A Thabo Mbeki

B Kgalema Motlanthe

C Nelson Mandela

D Evelyn Mase

Answer: C

Question 43

Chand Bibi was the ruler of .....

A Ahmednagar

B Bijapur

C Satara

D Golconda

Answer: A

Question 44

.....is the 2016 Oscar Winner for Best Director.

A Alejandro G. Inarritu

B Adam McKay

C George Miller

D Tom McCarthy

Answer: A

Question 45

Which among the following will be a negative ion?

A If it has more electrons than protons

B If it has more electrons than neutrons

C If it has more protons than electrons

D If it has more protons than neutrons

Answer: A

Question 46

Why metals conduct electricity?

A Because of low melting point

B Because of high tensile strength

C Because of free electrons

D Because of high atomic density

Answer: C

Question 47

To become a member of the Rajya Sabha a person should be at least .....years old.

A 18

B 30

C 36

D 24

Answer: B

Question 48

How many schedules does the Indian Constitution have?

A 6

B 12

C 18

D 24

Answer: B

Question 49

When is International Olympic Day observed?

A 16th August

B 2nd February

C 18th December

D 23rd June

Answer: D

Question 50

Author of famous book “12 Years A Slave” is

A Chetan Bhagat

B Nelson Mandela

C Solomon Northup Pirates

D Morarji Desai

Answer: C

English

Instructions
For the following questions answer them individually

Question 51

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'.
My twin (A)/is five minutes younger(B)/than myself.(C)/No error(D)

A A

B B

C C

D D

Answer: C

Question 52

Rearrange the parts of the sentence in correct order.
Tenzing Norgay created history
P-to conquer Mount Everest
Q-became the first men
R-on May 29, 1953, when he and Sir Edmund Hillary

A QRP

B QPR

C PRQ

D RQP

Answer: D

Question 53

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

A Everything tastes nice to a hungry person

B Getting a smaller share than expected

C It is difficult to forget tasty food

D Something easily achieved

Answer: D

Question 54

In the following question, out of the four alternatives, select the alternative which is the best substitute of the phrase
Having or displaying an overly critical point of view.

A Judgemental

B To hallucinate

C To contravene

D Expanse

Answer: A

Question 55

Improve the bracketed part of the sentence.
She (has fallen out with) the boy she was supposed to marry.

A fell out with

B has fallen out of

C has fallen in with

D no improvement

Answer: D

Question 56

In the following question, out of the four alternatives, select the alternative which is the best substitute of the phrase.
Obtain something by force, threats, or other unfair means.

A To regret

B To extort

C To resent

D To encompass

Answer: B

Question 57

Improve the bracketed part of the sentence.
If the screen (was any brighter), it would have been easier to read from the tablet.

A was bright enough

B was more brighter

C had been brighter

D no improvement

Answer: C

Question 58

Select the word with the correct spelling.

A infarnal

B dorsally

C somwhat

D mangoose

Answer: B

Question 59

Rearrange the parts of the sentence in correct order.
All tyrants realize that,
P-victims, there is sure to be one who
Q-rises against them and strikes back!' R-one day, amongst their many

A RQP

B PQR

C RPQ

D QRP

Answer: C

Question 60

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 manager's bank account has been hacked.

A They have hacked the manager's bank account.

B Hacking has been done to the manager's bank account.

C Bank's account hacking has been done of the manager.

D Someone has hacked the manager's bank account.

Answer: D

Question 61

Select the word with the correct spelling.

A deceased

B choiciest

C anglecan

D thankfull

Answer: A

Question 62

Select the synonym of nutritious

A insubstantial

B exceptional

C nourishing

D superlative

Answer: C

Question 63

In the following question, out of the four alternatives, select the alternative which best expresses the meaning of the idiom/phrase.
A picture paints a thousand words

A An image of a subject conveys its meaning or essence more effectively than a description does

B It is impossible to describe a beautiful sight

C A painter can express his feelings better than a writer

D A beautiful poem creates a mental picture

Answer: A

Question 64

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 government allocated Rs 1,000 Cr for .....of historical monuments.

A resurrection

B revival

C resumption

D restoration

Answer: D

Question 65

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'.
He says that (A)/he has done engineering(B)/besides an MBA./(C)No error/(D)

A A

B B

C C

D D

Answer: D

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.
Put your own house .....order before preaching others.

A within

B into

C in

D to

Answer: C

Question 67

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.
Vinod said to me, "Has your brother returned from Dubai?"

A Vinod said to me if my brother has returned from Dubai.

B Vinod asked me if my brother had returned from Dubai.

C Vinod enquire to me if my brother had returned from Dubai.

D Vinod asks me whether my brother had returned from Dubai.

Answer: B

Question 68

Select the antonym of pejorative

A rude

B complimentary

C derisive

D cheeky

Answer: B

Question 69

Select the synonym of transient

A lacerate

B ephemeral

C perpetual

D enduring

Answer: B

Question 70

Select the antonym of avid

A apathetic

B desirous

C devoted

D fanatical

Answer: A

Instructions

In the following passage some of the words have been left out. Read the passage carefully and select the correct answer for the given blank out of the four alternatives.
The preacher challenged hundreds of thousands of young people who gathered in a .....(1).....Polish meadow to reject being a ".....(2)....." who retreats into video games and computer screens and instead engage in social activism and politics to create a more just world. .....(3).....his speech with .....(4)....., the 79- year-old pope, despite a long day of public appearances, addressed his eager audience with enthusiasm yesterday on a warm summer night. Pope Francis spoke of a .....(5).....that comes from merely seeking convenience, from confusing happiness with a complacent way of life that could end up depriving people of the ability to determine their own fates.

Question 71

(1)

A huge

B sprawling

C very big

D gigantic

Answer: B

Question 72

(2)

A couch potato

B lazy tomato

C loafer

D spectator

Answer: A

Question 73

(3)

A Showering

B Endowing

C Glorifying

D Peppering

Answer: D

Question 74

(4)

A contemporary lingo

B modern linguistics

C fashionable jargon

D common slang

Answer: A

Question 75

(5)

A selfishness

B panic

C paralysis

D calamity

Answer: C

Mathematics

Instructions
For the following questions answer them individually

Question 76

If $4x^2 = 15^2 - 9^2$, then value of x is

A 9

B 6

C 3

D 12

Answer: B

Explanation:
Expression : $4x^2 = 15^2 - 9^2$

=> $4x^2 = (15 - 9)(15 + 9)$

=> $4x^2 = (6)(24)$

=> $x^2 = \frac{6 \times 24}{4} = 36$

=> $x = \sqrt{36} = 6$

=> Ans - (B)

Question 77

If 2x - 5y = 5 and 2x - y = 9, then x - y is .....

A 2

B 4

C 6

D 3

Answer: B

Explanation:
Equation 1 : 2x - 5y = 5

Equation 2 : 2x - y = 9

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

=> $5y - y = 9 - 5$

=> $4y = 4$ => $y = 1$

Substituting above value in equation(ii), => $2x - 1 = 9$

=> $2x = 9 + 1 = 10$

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

$\therefore (x - y) = 5 - 1 = 4$

=> Ans - (B)

Question 78

What is the value of cosec -7π/6?

A -2

B 2

C 2/√3

D -2/√3

Answer: B

Explanation:
Expression : cosec -7π/6

$\because cosec(-x) = -cosec(x)$

=> $cosec(\frac{7\pi}{6}) = -cosec(\frac{7\pi}{6})$

= $-cosec(\pi + \frac{\pi}{6})$

= $-[-cosec(\frac{\pi}{6})] = cosec(\frac{\pi}{6})$

= 2

=> Ans - (B)

Question 79

The diagonals do not form at least two congruent triangles in a .....

A Parallelogram

B Rhombus

C Trapezium

D Kite

Answer: C

Explanation:
In a parallelogram, rhombus or kite, both pairs of opposite sides are parallel, and thus there are at least two congruent triangles which is not the case in a trapezium which has only one pair of parallel sides.

=> Ans - (C)

Question 80

Points P and Q lie on side AB and AC of triangle ABC respectively such that segment PQ is parallel to side BC. If the ratio of AP:PB is 1:4 and area of Δ APQ is 4 sq cm, what is the area of trapezium PQCB?

A 60 sq cm

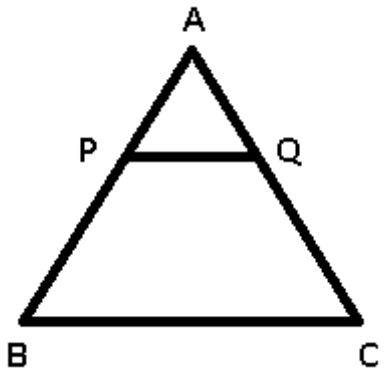
B 16 sq cm

C 96 sq cm

D 21 sq cm

Answer: C

Explanation:



It is given that AP : PB = 1 : 4

Let AP = 1 cm and PB = 4 cm

Let area of trapezium PQCB = x sq cm

In $\triangle$ APQ and $\triangle$ ABC

$\angle$ PAQ = $\angle$ BAC (common)

$\angle$ APQ = $\angle$ ABC (Alternate interior angles)

$\angle$ AQP = $\angle$ ACB (Alternate interior angles)

=> $\triangle$ APQ $\sim$ $\triangle$ ABC

=> Ratio of Area of $\triangle$ APQ : Area of $\triangle$ ABC = Ratio of square of corresponding sides = $(AP)^2 : (AB)^2$

= $\frac{(1)^2}{(1+4)^2} = \frac{4}{(4+x)}$

=> $\frac{4}{4+x} = \frac{1}{25}$

=> $4 + x = 25 \times 4 = 100$

=> $x = 100 - 4 = 96cm^2$

=> Ans - (C)

Question 81

Given: 2x - 4 ≤ 2 - x/3 and 2(2x + 5) > 3x - 5, then x can take which of the following values?

A -14

B 3

C 4

D 14

Answer: A

Explanation:

Expression 1 : 2x - 4 ≤ 2 - x/3

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

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

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

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

=> $4x + 10 > 3x - 5$

=> $4x - 3x > -5 - 10$

=> $x > -15$ ----------(ii)

Combining inequalities (i) and (ii), we get : $-15 < x \leq \frac{18}{7}$

The only value that x can take among the options = -14

=> Ans - (A)

Question 82

A painter can paint a fence in 24 hours. After 6 hours he takes a break. What fraction of the fence is yet to be painted?

A 0.6

B 0.2

C 0.75

D 0.8

Answer: C

Explanation:
Time taken to paint a fence = 24 hours

Time spent = 6 hours

=> Fraction of the fence yet to be painted = $\frac{(24-6)}{24} = \frac{18}{24}$

= $\frac{3}{4} = 0.75$

=> Ans - (C)

Question 83

If 1/6 of x - 7/2 of 3/7 equals - 7/4, then the value of x is

A -1.5

B 3

C -2.5

D 6

Answer: A

Explanation:
According to ques,

=> $(\frac{1}{6} \times x) - (\frac{7}{2} \times \frac{3}{7}) = \frac{-7}{4}$

=> $\frac{x}{6} - \frac{3}{2} = \frac{-7}{4}$

=> $\frac{x}{6} = \frac{3}{2} - \frac{7}{4}$

=> $\frac{x}{6} = \frac{-1}{4}$

=> $x = \frac{-6}{4} = -1.5$

=> Ans - (A)

Question 84

x and y are two numbers such that their mean proportion is 9 and third proportion is 243. What is the value of x and y?

A 3 and 9

B 3 and 27

C 6 and 27

D 6 and 81

Answer: B

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

Mean proportion of two numbers x and y = 9

=> $xy = (9)^2 = 81$ ----------(i)

Third proportion = 243

=> $y^2 = x \times 243$ ----------(ii)

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

=> $y^2 = \frac{81}{y} \times 243$

=> $y^3 = (3)^4 \times (3)^5 = (3)^9$

=> $y = (3)^{\frac{9}{3}} = 3^3 = 27$

Substituting it in equation(i), => $x = \frac{81}{27} = 3$

=> Ans - (B)

Question 85

If 21% of an electricity bill is discounted, Rs 1817 is still to be paid. How much was the original bill amount?

A Rs 1502

B Rs 2336

C Rs 2300

D Rs 1538

Answer: C

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

If 21% of an electricity bill is deducted, bill left = $\frac{100-21}{100} \times 100x = 79x$

According to ques, => $79x = 1817$

=> $x = \frac{1817}{79} = 23$

∴ Original bill amount = $100 \times 23 = Rs.2300$

=> Ans - (C)

Question 86

The average revenues of 7 consecutive years of a company is Rs 79 lakhs. If the average of first 4 years is Rs 74 lakhs and that of last 4 years is Rs 86 lakhs, what is the revenue for the 4th year?

A Rs 87 lakhs

B Rs 89 lakhs

C Rs 85 lakhs

D Rs 83 lakhs

Answer: A

Explanation:
Total revenues of 7 years of the company = 79×7 = Rs. 553 lakhs

Total revenue of first 4 years = 74×4 = Rs. 296 lakhs

Total revenue of last 4 years = 86×4 = Rs. 344 lakhs

∴ Revenue of 4th year = (296 + 344) - 553 = 640 - 553

= Rs. 87 lakhs

=> Ans - (A)

Question 87

A shopkeeper, sold dried apricots at the rate Rs 1210 a kg and bears a loss of 12%. Now if he decides to sell it at Rs 1331 per kg, what will be the result?

A 6.4 percent loss

B 3.2 percent gain

C 6.4 percent gain

D 3.2 percent loss

Answer: D

Explanation:
Let cost price of 1 kg of apricots = $Rs.x$

If Selling price of 1 kg of apricots = Rs. 1210

=> Loss % = $\frac{x-1210}{x} \times 100 = 12$

=> $\frac{x-1210}{x} = \frac{12}{100} = \frac{3}{25}$

=> $25x - 30250 = 3x$

=> $25x - 3x = 22x = 30250$

=> $x = \frac{30250}{22} = 1375$

When selling price = Rs. 1331

=> **Loss %** = $\frac{1375-1331}{1375} \times 100$

= $\frac{44 \times 4}{55} = 3.2\%$

=> Ans - (D)

Question 88

If the shopkeeper sells an item at Rs 1600 which is marked as Rs 2000, then what is the discount he is offering?

A 25 percent

B 20 percent

C 30 percent

D 10 percent

Answer: B

Explanation:
Marked Price = Rs. 2000

Selling price = Rs. 1600

=> Discount % = $\frac{(2000-1600)}{2000} \times 100 = \frac{400}{20} = 20\%$

=> Ans - (B)

Question 89

If cosecA + cotA = x, then value of x is

A 1/(cosecA - cotA)

B 1/(secA - tanA)

C 1/(secA - cosA)

D 1/(sinA - cosA)

Answer: A

Explanation:
Expression : cosecA + cotA = x

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

Multiplying both numerator and denominator by $(1 - cosA)$

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

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

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

Dividing both numerator and denominator by $(sinA)$

= $\frac{1}{cosecA-cotA}$

=> Ans - (A)

Question 90

Dalajit lent Rs 10800 to Jaabir for 3 years and Rs 7500 to Kabir for 2 years on simple interest at the same rate of interest and received Rs 1422 in all from both of them as interest. The rate of interest per annum is

A 3.5 percent

B 4 percent

C 3 percent

D 4.5 percent

Answer: C

Explanation:
Let rate of interest per annum = $r\%$

Sum lent to Jaabir = Rs. 10,800 for 3 years and Rs. 7500 to Kabir for 2 years

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

=> Total interest = $(\frac{10800 \times r \times 3}{100}) + (\frac{7500 \times r \times 2}{100}) = 1422$

=> $324r + 150r = 1422$

=> $474r = 1422$

=> $r = \frac{1422}{474} = 3\%$

=> Ans - (C)

Question 91

tan(A/2) is equal to

A tanA/(1 + secA)

B 1/(cosecA + cotA)

C tanA/(1 + cosecA)

D 1/(secA + cotA)

Answer: A

Explanation:
Using double angle formula, we know that $cos(2\theta) = cos^2\theta - sin^2\theta$

=> $cos(2\theta) = (1 - sin^2\theta) - sin^2\theta$

=> $cos(2\theta) = 1 - 2sin^2\theta$

Replacing θ by $\frac{A}{2}$, we get :

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

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

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

=> $sin(\frac{A}{2}) = \sqrt{\frac{(1-cosA)}{2}}$

Similarly, => $cos(\frac{A}{2}) = \sqrt{\frac{(1+cosA)}{2}}$

Now, to find : $tan(\frac{A}{2})$

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

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

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

= $\sqrt{\frac{1-cosA}{1+cosA}}$

= $\sqrt{\frac{1-cosA}{1+cosA} \times \frac{1+cosA}{1+cosA}}$

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

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

Dividing both numerator and denominator by $(cosA)$

= $\frac{tanA}{1+secA}$

=> Ans - (A)

Question 92

In ΔPQR, S and T are points on side PQ and PR respectively. ST is parallel to QR. If lengths of PS, SQ and PR are 6 cm, 9 cm and 12.5 cm respectively, what is the length of TR?

A 7.5 cm

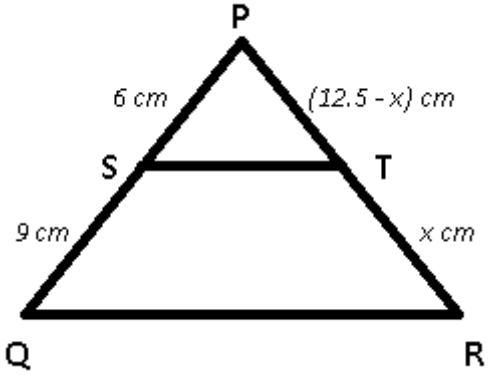
B 5 cm

C 10 cm

D 2.5 cm

Answer: A

Explanation:



ST is parallel to QR and PS = 6 cm and SQ = 9 cm

PR = 12.5 cm

Let TR = x cm

=> $\frac{PS}{SQ} = \frac{PT}{TR}$

=> $\frac{6}{9} = \frac{(12.5-x)}{x}$

=> $\frac{(12.5-x)}{x} = \frac{2}{3}$

=> $37.5 - 3x = 2x$

=> $3x + 2x = 5x = 37.5$

=> $x = \frac{37.5}{5} = 7.5$ cm

=> Ans - (A)

Question 93

How many balls of radius 2 cm can be made by melting a bigger ball of diameter 16 cm? (Take π = 22/7)

A 64

B 128

C 32

D 96

Answer: A

Explanation:
Since the larger ball is melted, the volume will remain constant.

Radius of big ball = 8 cm and radius of small balls = 2 cm

Let n balls be formed

=> $\frac{4}{3} \times \pi \times 2^3 \times n = \frac{4}{3} \times \pi \times 8^3$

=> $n = \frac{8^3}{2^3} = (\frac{8}{2})^3$

=> $n = 4^3 = 64$

=> Ans - (A)

Question 94

At what point does the line 3x + y = -6 intercept the x-axis?

A (2,0)

B (-2,0)

C (0,-6)

D (0,6)

Answer: B

Explanation:

The line $3x + y = -6$ will intercept the x-axis at $y = 0$

Thus, substituting value of y in above equation

=> $3x + 0 = -6$

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

Thus, the line will intercept x axis at (-2,0)

=> Ans - (B)

Question 95

A thief is stopped by a policeman from a distance of 150 metres. When the policeman starts the chase, the thief also starts running. Assuming the speed of the thief as 7 km/hr and that of policeman as 9 km/hr, how far the thief would have run, before he is over-taken by the policeman?

A 420 metres

B 630 metres

C 315 metres

D 525 metres

Answer: D

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

Speed of thief = 7 km/hr and speed of policeman = 9 km/hr

=> Relative speed = 9 - 7 = 2 km/hr

Distance between them = 150 metres = 0.15 km

=> Time taken = $\frac{distance}{speed}$

= $\frac{0.15}{2} = \frac{3}{40}$ hr

$\therefore$ Distance covered by thief before he was caught = $7 \times \frac{3}{40}$

= 0.525 km = 525 metres

=> Ans - (D)

Question 96

Common factor of $24b^6c^8d^2, 18a^6c^2d^4, 12a^4b^4$ is

A $72a^2b^2c^2d^2$

B $72a^6b^6c^8d^4$

C $6a^2b^2$

D 6

Answer: D

Explanation:
Factors of :

$24b^6c^8d^2 = (2 \times 2 \times 6) \times b^6 \times c^8 \times d^2$

$18a^6c^2d^4 = (3 \times 6) \times a^6 \times c^2 \times d^4$

$12a^4b^4 = (2 \times 6) \times a^4 \times b^4$

The common factor in the 3 terms = 6

=> Ans - (D)

Question 97

Refer the below data table and answer the following Question.

	Quantity of Stock	Average Cost (Rs)
Mobile Phones	44	12000
Cameras	75	14000
TVs	55	56000
Refrigirators	29	53000
ACs	77	26000

What Is the value of the total stock (in lakh rupees)?

A 81.97

B 819.7

C 161

D 280

Answer: A

Explanation:
Total cost of mobiles = 44 $\times$ 12000 = Rs. 5,28,000

Total cost of Cameras = 75 $\times$ 14000 = Rs. 10,50,000

Total cost of TVs = 55 $\times$ 56000 = Rs. 30,80,000

Total cost of Refrigerator = 29 $\times$ 53000 = Rs. 15,37,000

Total cost of AC = 77 $\times$ 26000 = Rs. 20,02,000

$\therefore$ Total cost = 5,28,000 + 10,50,000 + 30,80,000 + 15,37,000 + 20,02,000 = Rs. 81,97,000

Total cost in lakhs = Rs 81.97 lakhs

=> Ans - (A)

Question 98

Refer the below data table and answer the following Question.

Year	Ratio : Import / Export
2011	1
2012	1.1
2013	1.5
2014	0.9
2015	1.1

If the imports In 2012 was Rs. 1000 crores and the total exports in the years 2012 and 2013 together was Rs 4800 crores, then the imports in 2013 was?

A 3891

B 5836

C 909

D 2594

Answer: B

Explanation:
Imports in 2012 = Rs. 1000 crores

Let Exports in 2012 = Rs. y crores

Ratio of imports and exports in 2012 = 1.1

=> $\frac{1000}{y} = 1.1$

=> $y = \frac{1000}{1.1} = 909.09$

Total exports In the years 2012 and 2013 together = Rs. 4800 crores

=> Exports in 2013 = Rs. (4800 - 909.09) crores = Rs. 3890.91 crores

Let imports in 2013 = Rs. x crores

Ratio of imports and exports in 2013 = $\frac{x}{3890.91} = 1.5$

=> $x = 3890.91 \times 1.5 = 5836.365 \approx 5836$

$\therefore$ Imports in 2013 was Rs. 5836 crores

=> Ans - (B)

Question 99

Refer the below data table and answer the following Question.

Measured on Birthday	Height of the child (in cms)
4	100
5	105
6	110
7	120
8	130
9	140
10	145
11	150
12	160
13	165
14	170
15	175
16	180

What was the increase in the height of the child from the 10th Birthday to the 11th Birthday?

A 15 cm

B 10 cm

C 5 cm

D 4 cm

Answer: C

Explanation:
Height on 10th birthday = 145 cm

Height on 11th birthday = 150 cm

Increase in height = 150 - 145 = 5 cm

=> Ans - (C)

Question 100

Between 10pm to 6am, a fitness band records the following data. Refer the below data table and answer the following Question.

Deep Sleep	15
Dreaming	15
Light Sleep	5
Extremely Light Sleep	30
Awake	35

How long was the user in Deep Sleep or was Awake?

A 3.5 hours

B 2.5 hours

C 4.5 hours

D 4 hours

Answer: D

Explanation:
Total time between 10 pm to 6 am = 8 hours

% time spent in deep sleep and in awake = 15 + 35 = 50%

=> Time spent on dreaming or extremely sleeping = $\frac{50}{100} \times 8$

= $\frac{8}{2} = 4$ hours

=> Ans - (D)