

SSC CHSL 20 December 2015 Morning Shift

Reasoning

Instructions

For the following questions answer them individually

Question 1

Eight friends A, B, C, D, E, F, G and H are sitting around a round table in the same order at equal distances. Their positions are in clockwise direction. If G, who is sitting in the North exchange seat with C, and B exchange seat with F. Now who is sitting to the right of F ?

A G

B E

C A

D B

Answer: A

Question 2

If FATHER is coded as FBTIES, what should be the code for the word SISTER ?

A SJSUES

B SKSVET

C SHSSEQ

D TJTUFS

Answer: A

Instructions

In the following 9 questions, find the odd word / number / letters / number pair from the given alternatives.

Question 3

Find the odd letters.

A EGI

B BDE

C MOQ

D LNP

Answer: B

Explanation:

(A) : E (+2 letters) = G (+2 letters) = I

(B) : B (+2 letters) = D (+1 letter) = E

(C) : M (+2 letters) = O (+2 letters) = Q

(D) : L (+2 letters) = N (+2 letters) = P

=> Ans - (B)

Question 4

Find the odd letters.

A VNHK

B NQMJ

C NBJM

D MONR

Answer: D

Explanation:

Among, the given terms, the only group of letters that has vowel in it is **MONR**, hence it is the odd one out.

=> Ans - (D)

Question 5

Find the odd word.

A Elope

B Degrade

C Abase

D Humiliate

Answer: A

Explanation:

Abase, degrade and humiliate are synonyms meaning to belittle someone, hence **elope** meaning to run away secretly to get married is the odd one out.

=> Ans - (A)

Question 6

Find the odd letters.

A AC

B BD

C CD

D DF

Answer: C

Explanation:

(A) : A (+2 letters) = C

(B) : B (+2 letters) = D

(C) : C (+1 letter) = D

(D) : D (+2 letters) = F

=> Ans - (C)

Question 7

Find the odd word.

A M.L.A

B Prime Minister

C President

D Minister

Answer: C

Explanation:

MLAs, Prime Minister, and ministers are the direct representatives of the people, elected by the people, hence **President** elected by M.Ps and M.L.As is the odd one out.

=> Ans - (C)

Question 8

Find the odd number.

A 56

B 2

C 128

D 16

Answer: A

Explanation:

Apart from 56, all the given numbers are of the form $(2)^n$, hence **56** is the odd one out.

$$(2)^1 = 2, (2)^7 = 128, (2)^4 = 16$$

=> Ans - (A)

Question 9

Find the odd word.

A Swing

B Googly

C Bouncer

D Yorker

Answer: B

Explanation:

Even though all the terms are related to bowling in a cricket game, but **googly** being related to spin bowling is the odd one out.

=> Ans - (B)

Question 10

Find the odd number

A 49

B 36

C 65

D 100

Answer: C

Explanation:

Apart from **65**, all the numbers are perfect squares.

$$(7)^2 = 49, (6)^2 = 36, (10)^2 = 100$$

=> Ans - (C)

Question 11

Find the odd number.

A 67626

B 84129

C 32418

D 47632

Answer: D

Explanation:

If we divide the numbers in two parts, i.e. first part consisting of first three digits and second part having last two, we find that :

$$(A) : 676 \ 26 \equiv (26)^2 = 676$$

$$(B) : 841 \ 29 \equiv (29)^2 = 841$$

$$(C) : 324 \ 18 \equiv (18)^2 = 324$$

$$(D) : 476 \ 32 \equiv (32)^2 = 1024 \neq 476$$

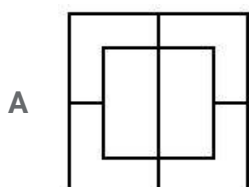
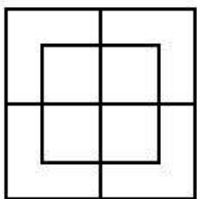
=> Ans - (D)

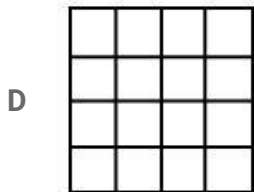
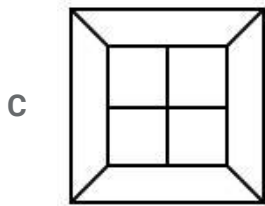
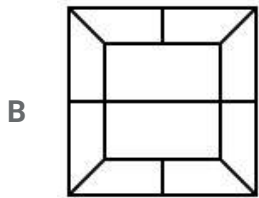
Instructions

For the following questions answer them individually

Question 12

From the given answer figures, select the one in which the question figure is hidden / embedded.





Answer: D

Question 13

In the certain code CONVENTIONAL is written as NOCNEVOITLAN. How is ENTHRONEMENT in that code written ?

- A TNEORHMENTNE
- B TNEROHEMNTNE
- C TNEORMETNHNE
- D TNEROHEMNNTE

Answer: A

Explanation:

CONVENTIONAL is written as NOCNEVOITLAN

The word is divided into groups of three letters each and then the letters in each group are written in reverse order.

Eg :- CON/VEN/TIO/NAL = NOC/NEV/OIT/LAN

Similarly, ENT/HRO/NEM/ENT = TNE/ORH/MEN/TNE

=> Ans - (A) : **TNEORHMENTNE**

Instructions

In the following 9 questions, select the related word/letters/number from the given alternatives.

Question 14

Bullock : Cart :: Horse : ?

- A Plough
- B Ride
- C Race
- D Tonga

Answer: D

Explanation:

Expression = Bullock : Cart :: Horse : ?

A 2 or 4 wheeler vehicle pulled by a bullock is called a bullock cart, similarly the vehicle pulled by a horse is called a **tonga**.

=> Ans - (D)

Question 15

Motor : Coil :: ?

- A Wheel : Bearing
- B Regiment : Soldier
- C Table : Chair
- D Wheel : Car

Answer: A

Explanation:

Second is used to properly operate the first, a coil is used to generate a magnetic field in a motor, similarly a bearing is used for the proper rotation of wheel.

Thus, Motor : Coil :: **Wheel : Bearing**

=> Ans - (A)

Question 16

Blacksmith : Hammer :: ?

- A Pen : Writer
- B Carpenter : Wood
- C Surgeon : Forceps

D Cloth : Tailor

Answer: C

Explanation:

First use second to do his work, a blacksmith uses a hammer, similarly uses a forept.

Thus, Blacksmith : Hammer : : **Surgeon : Forceps**

=> Ans - (C)

Question 17

CAT : DDY :: BIG : ?

A CML

B CLL

C CEP

D CLM

Answer: B

Explanation:

Expression = CAT : DDY :: BIG : ?

The pattern followed is :

C	A	T
(+1)	(+3)	(+5)
D	D	Y

Similarly, for BIG : **CLL**

B	I	G
(+1)	(+3)	(+5)
C	L	L

=> Ans - (B)

Question 18

EAGLE : FCJPJ :: CRAWL : ?

A DTDAQ

B DTEZQ

C DTDBRC

D DTFCR

Answer: A

Question 19

CEGI : DHLP :: KSEA ?

A LTGI

B LSGF

C LUIH

D LVJH

Answer: D

Question 20

4 : 19 :: 7 : ?

A 49

B 52

C 28

D 68

Answer: B

Explanation:

Expression = $4 : 19 :: 7 : ?$

The pattern followed is $n : n^2 + 3$

Eg :- $(4)^2 + 3 = 19$

Similarly, $(7)^2 + 3 = 52$

=> Ans - (B)

Question 21

4863 - 2436 :: 8132 - 4261 ::

A 5926-1813

B 8346-4623

C 6214-3121

D 9842-8421

Answer: B

Explanation:

Expression = $4863 - 2436 :: 8132 - 4261 ::$

The pattern followed is that in the given set, every even number is halved and every odd number is doubled.

Thus, the number that follows the same pattern is :

8 -> 4

3 -> 6

4 -> 2

6 -> 3

Thus, **8346-4623**

=> Ans - (B)

Question 22

556 : 186 :: 951 : ?

A 217

B 176

C 317

D 286

Answer: B

Explanation:

Expression = $556 : 186 :: 951 : ?$

The sum of digits of first number is 1 less than the sum of digits of second number.

Eg :- $5 + 5 + 6 = 16$ and $1 + 8 + 6 = 15$

Similarly, $9 + 5 + 1 = 15$ and thus the sum of digits of only **176** is 14.

$1 + 7 + 6 = 14$

=> Ans - (B)

Instructions

For the following questions answer them individually

Question 23

A was twice as old as B, two years ago. If the difference in their ages be 2 years, find A's age.

- A 8
- B 10
- C 4
- D 6

Answer: D

Explanation:

Let B's age two years ago = x years

=> A's age 2 years ago = $2x$ years

=> Difference in age (remains constant) = $2x - x = 2$

=> $x = 2$

∴ A's present age = $2(2) + 2 = 6$ years

=> Ans - (D)

Question 24

A word is represented by only one set of numbers as given in any one of the alternatives. The set of numbers given in the alternatives are represented by two classes of alphabets as in two matrices given below. The columns and rows of Matrix I are numbered from 0 to 4 and that of Matrix II are numbered from 5 to 9. A letter from these matrices can be represented first by its row and next by its column, e.g., A can be represented by 02, 11 etc., and L can be represented by 56, 67 etc. Similarly, you have to identify the set for the word BEARD.

Matrix-I					Matrix-II						
	0	1	2	3	4		5	6	7	8	9
0	S	P	A	R	E	5	D	L	I	U	B
1	P	A	R	E	S	6	B	D	L	I	U
2	A	R	E	S	P	7	U	B	D	L	I
3	R	E	S	P	A	8	I	U	B	D	L
4	E	S	P	A	R	9	L	I	U	B	D

- A 87, 13, 43, 21, 88
- B 88, 13, 43, 44, 21
- C 88, 87, 43, 21, 13
- D 87, 13, 43, 88, 21

Answer: A

Explanation:

(A) : 87, 13, 43, 21, 88 = **BEARD**

(B) : 88, 13, 43, 44, 21 = DEARR

(C) : 88, 87, 43, 21, 13 = DBARE

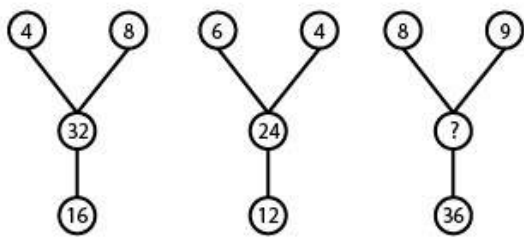
(D) : 87, 13, 43, 88, 21 = BEADR

=> Ans - (A)

Instructions

In the following 4 questions, select the missing number from the given responses.

Question 25



A 42

B 56

C 72

D 18

Answer: C

Explanation:

The middle number is equal to the product of top two numbers, and also double the bottom number.

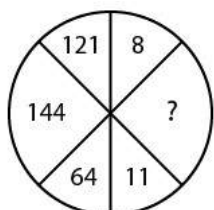
Eg :- $4 \times 8 = 32$

and $6 \times 4 = 24$

Similarly, $8 \times 9 = 72$

=> Ans - (C)

Question 26



A 12

B 14

C 8

D 9

Answer: A

Explanation:

Starting from 8, and going clockwise direction, the diagonally opposite numbers are their perfect square.

Eg :- $(8)^2 = 64$

and $(11)^2 = 121$

Similarly, $(12)^2 = 144$

=> Ans - (A)

Question 27

3	4	5
2	3	4
1	2	3
14	29	?

A 32

B 40

C 30

D 50

Answer: D

Question 28

113	118	?
112	?	116
?	110	115

A 111, 114, 117

B 117, 109, 111

C 114, 111, 117

D 109, 111, 117

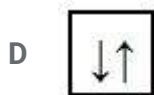
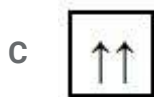
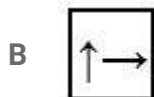
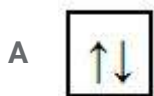
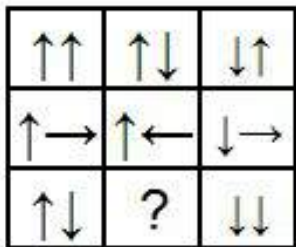
Answer: A

Instructions

For the following questions answer them individually

Question 29

Which answer figure will complete the pattern in the question figure ?



Answer: C

Question 30

If 0, 1, 2, 3, ..., 9 is written as a, b, c, d, ..., j, then find $dc \times f - (bf - d) \times d$.

A abe

B bcf

C abb

D bce

Answer: D

Question 31

Suresh walked 7 km east and turned to his left walked 4 kms. He then turned to his right and walked 5 kms. Finally, he again turned to his right and walked 4 kms. In which direction is he now, from his starting point ?

A East

B West

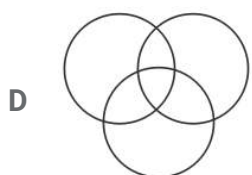
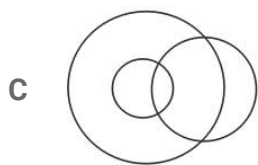
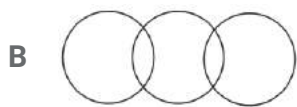
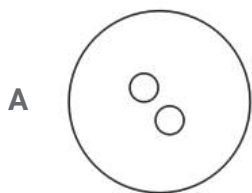
C North

D South

Answer: A

Question 32

Which combination figure best represents the relationship between mosquitoes, ants and insects ?



Answer: A

Instructions

In the following 2 questions, from the given alternatives words, select the word which cannot be formed using the letters of the given word.

Question 33

SYNTHESIS

A THEN

B STORY

C THESIS

D THIS

Answer: B

Explanation:

The word SYNTHESIS does not contain any 'O' or 'R', thus the term **Story** cannot be formed.

=> Ans - (B)

Question 34

MANIPULATE

A POLLUTE

B PINT

C MANTLE

D PLATE

Answer: A

Explanation:

The word MANIPULATE does not contain any 'O', thus the term **Pollute** cannot be formed.

=> Ans - (A)

Instructions

For the following questions answer them individually

Question 35

Which one of the given responses would be a meaningful order of the following ?

1.Stone

2.Sand

3.Rock

4.Boulder

5.Hill

A 2, 1, 3, 4, 5

B 1, 4, 2, 3, 5

C 5, 3, 2, 1, 4

D 5, 4, 2, 1, 3

Answer: A

Explanation:

The meaningful order in terms of size is,

= Sand -> Stone -> Rock -> Boulder -> Hill

≡ 2, 1, 3, 4, 5

=> Ans - (A)

Instructions

In the following 2 questions, arrange the following words as per order in the dictionary.

Question 36

1.Electrolysis

2.Electrotyping

3.Electrician,

4.Electroplating

5.Electrification

A 5, 3, 1, 4, 2

B 3, 5, 1, 4, 2

C 5, 3, 2, 4, 1

D 3, 5, 4, 1, 2

Answer: B

Explanation:

As per order of dictionary,

= Electrician -> Electrification -> Electrolysis -> Electroplating -> Electrotyping

≡ 3, 5, 1, 4, 2

=> Ans - (B)

Question 37

- 1. Yashmak
- 2. Yacht
- 3. Yawl
- 4. Yawn

- A 2, 3, 4, 1
- B 2, 4, 3, 1
- C 2, 1, 3, 4
- D 2, 1, 4, 3

Answer: C

Explanation:

As per order of dictionary,

= Yacht -> Yashmak -> Yawl -> Yawn

≡ 2, 1, 3, 4

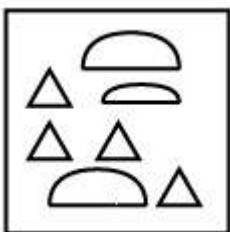
=> Ans - (C)

Instructions

For the following questions answer them individually

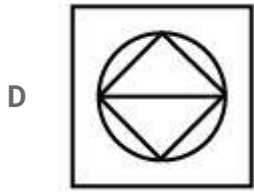
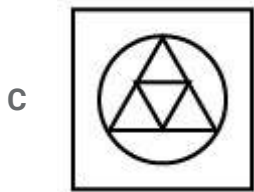
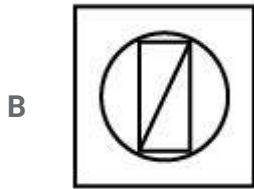
Question 38

Identify the answer figure from which the pieces given in the question figure have been cut.



A





Answer: C

Question 39

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

A abaac

B cabcb

C bacbc

D bcacb

Answer: B

Instructions

In the following 5 questions, a series is given, with one term missing. Choose the correct alternative from the given ones that will complete the series.

Question 40

8, 13, 18, 23, ?, 33, 38

A 23

B 26

C 33

D 28

Answer: D

Explanation:

'5' is added in each term

$$8 + 5 = 13$$

$$13 + 5 = 18$$

$$18 + 5 = 23$$

$$23 + 5 = \mathbf{28}$$

$$28 + 5 = 33$$

$$33 + 5 = 38$$

=> Ans - (D)

Question 41

1001, 1004, 1012, 1027, ?

A 1036

B 1051

C 1050

D 1048

Answer: B

Question 42

HIJQRDEF ? VW

A N

B H

C U

D J

Answer: C

Question 43

AC, EG, IK, ?

A ON

B LM

C MO

D OP

Answer: C

Question 44

8, 24, ?, 80, 120

A 72

B 54

C 40

D 48

Answer: D

Instructions

In the following Two questions, two statements are given each followed by two conclusions assumptions, I and II. You have to consider the statement to be true even if they seem to be at variance from commonly known facts. You have to decide which of the given conclusions/assumptions, if any, follows from the given statements.

Question 45

Statements I: Regular polygon has equal sides and equal angles.

II: Square is a regular polygon.

Conclusions I: Square has equal sides.

II: Square has equal angles.

A Conclusions I follows.

B Conclusions II follows.

C Neither I nor II follows.

D Conclusions I & II both follows.

Answer: D

Question 46

Statements I: The principal will address the students at 10 a.m.

II: You are requested to take your seats before 10 a.m.

Assumption I: If the student is not on his seat before 10 a.m. the function will not start.

II: The function will start as scheduled.

- A Assumption I is simpliciter.
- B Both I and II are implicit.
- C Neither I nor II is implicit.
- D Assumption II is implicit.

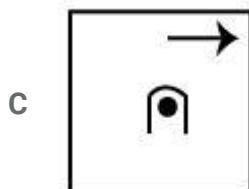
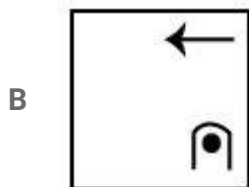
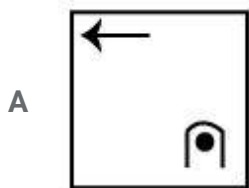
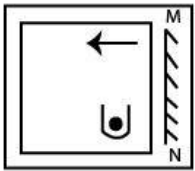
Answer: C

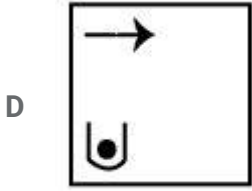
Instructions

For the following questions answer them individually

Question 47

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





Answer: D

Question 48

If in a business, Alok gains 75% more profit than Akash, then by what percentage profit of Akash is less than the profit of Alok ?

- A 42.85%
- B 30.8%
- C 12.63%
- D 25%

Answer: A

Explanation:

Let Akash's profit = Rs. 100

$$\Rightarrow \text{Alok's profit} = 100 \times \frac{(100+75)}{100} = \text{Rs. } 175$$

$$\therefore \text{Required \%} = \frac{(175-100)}{175} \times 100$$

$$= \frac{300}{7} = 42.85\%$$

\Rightarrow Ans - (A)

Question 49

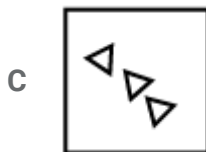
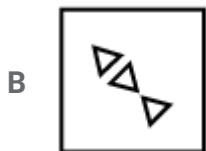
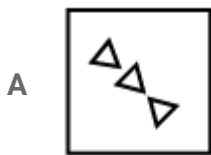
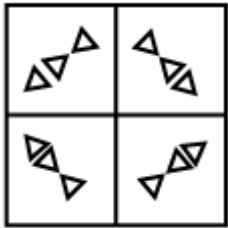
If # means <; o means >; □ means =; then which of the following follows definitely from a o b # c □ d ?

- A b # d
- B a □ c
- C b □ d
- D b O d

Answer: A

Question 50

If a paper is folded in a particular manner and punch is made, when unfolded this paper appears as given below in the question figure. Find out the manner in which the paper is folded and the punch is made from the answer figures given.



Answer: B

English

Instructions

In the following Ten Questions, in the following passage some of the words have been left out. Read the passage carefully and choose the correct answer to each question out of the four alternatives and fill in the blanks.

Smile, they say, and soon there will be miles and miles of smiles. If we keep (i) Ourselves and do not mix with others, we shall be left alone to ponder (ii) the misfortunes of life. Nobody likes to come across a (iii) and self-centered person. People (iv) gregarious and outgoing souls who are prepared to share their joys and sorrows and have the (v) to laugh (vi) their problems and miseries. Laughter brings people (vii) whereas keeping to oneself distances people. It has (viii)

been rightly said that laughter is the shortest distance between two persons. Once they (ix) together, the circle of acquaintance, and consequently friendship (x) thus making the world a happy place to live in.

Question 51

(viii)

- A SO
- B Therefore
- C Hence
- D However

Answer: B

Question 52

(v)

- A Sense
- B feeling
- C capacity
- D intention

Answer: C

Question 53

(ii)

- A into
- B over
- C upon
- D at

Answer: B

Question 54

(vii)

A apart

B home

C closer

D far

Answer: C

Question 55

(iii)

A kind

B comic

C glum

D unselfish

Answer: C

Question 56

(vi)

A on

B away

C at

D over

Answer: B

Question 57

(iv)

A like

B dislike

C opt

D hatc

Answer: A

Question 58

(i)

A by

B to

C into

D with

Answer: B

Question 59

(x)

A grows

B Breadens

C Widens

D lessens

Answer: A

Question 60

(ix)

A come

B sit

C are

D go

Answer: C

Instructions

In the following Four Questions, choose the word opposite in meaning to the given word and mark it in the Answer Sheet.

Question 61

Resist

- A Yield
- B Remain
- C Adjust
- D Decline

Answer: A

Question 62

Elementary

- A Compound
- B Complex
- C Hard
- D Involved

Answer: B

Explanation:

C

Question 63

Accumulate

- A Below
- B Dismiss
- C Disperse
- D Aware

Answer: C

Question 64

Concur

- A Disagree
- B Agree
- C Prise
- D Weak

Answer: A

Instructions

Inn the following Four Questions, out of the four alternatives. Choose the onne which can be substituted for the given words/sentences and indicate it by blackening the appropriates circle inn the answer Sheet.

Question 65

An act of misappropriation of money

- A Debasement
- B Misconduct
- C Corruption
- D Embezzlement

Answer: D

Question 66

one who cannot make any mistake

- A Illegible
- B Invisible
- C Inaudible
- D Infallible

Answer: D

Question 67

A person in charge of a museum

- A Philatelist
- B Curator
- C Mayor
- D Architect

Answer: B

Question 68

the first public performance of a musical or theatrical work or the first showing of a film

- A Premiere
- B Preview
- C Opener
- D Debut

Answer: A

Instructions

In the following Two Questions, a sentence has been given in Active/Passive Voice. Out of the four alternatives suggested, select the one which best expresses the same sentence in Passive/Active Voice and mark your answer in the Answer Sheet.

Question 69

The agreement between the management and the workers was drafted by an advisory board.

- A An advisory board had drafted the agreement between the management and the workers.
- B An advisory board drafted the agreement between the management and the workers.
- C The agreement between the management and the workers is being drafted by an advisory board.
- D An advisory board is drafting the agreement between the management and the workers.

Answer: B

Question 70

Put up the tent

- A The tent is being put up
- B Let the tent be put up
- C The tent has been put up
- D Let the tent being put up

Answer: B

Instructions

In the Four Questions, the first and the last part of sentence are numbered 1 and 6. The rest of the sentence is split into four parts and named P, Q, R and S. These four parts are not given in their proper order. Read the sentence and find out which of the four combinations is correct. Then find the correct answer and indicate it in the Answer Sheet.

Question 71

- I. The narmada Dam Project
- P. Many of whom
- Q. The most deprived sections
- R. Will displace some people
- S. Happen to belong to some of
- 6. Of indian society.

- A PQRS
- B PSRQ
- C SRQP
- D RPSQ

Answer: D

Question 72

- I. television
- P. has become
- R. one of the marvels
- S. of modern science.
- 6. of mass communication today.

A PQRS

B RSQP

C SRQP

D RSPQ

Answer: D

Question 73

I. While

P. I was walking

Q. with my brother

R. I met a monk

S. in the field

6. Who was from Nepal

A RSQP

B RQSP

C PQSR

D PSQR

Answer: C

Question 74

I. All religions who us the path

P. know that

R. god is one

S. which leads to God

6 but the paths are different

A SRQP

B SQPR

C QSPR

D QPRS

Answer: B

Instructions

In the following four Questions, a part of the sentence is underlined. Below are given alternatives to the underlined part which may improve the sentence. Choose the correct alternative. In case no improvement is needed blacken the circle corresponding to "No improvement."

Question 75

Being a wet day, he stayed at home.

- A Since
- B Though
- C No improvement
- D As it was

Answer: D

Question 76

I shall write to you when I reach Agra.

- A Would write to you
- B No improvement
- C Will write to you
- D Should write to you

Answer: B

Question 77

We've got a new big house.

- A Big new house
- B House big new
- C No improvement
- D House new big

Answer: A

Question 78

The President of India administers the oath of office to the Council of Ministers.

- A Reads out the oath
- B Imposes the promise
- C No improvement
- D Supervises the oath taking ceremony

Answer: C

Instructions

In the following four questions, sentences are given with blanks to be filled in with an appropriate words(s). Four alternatives are suggested for each question. Choose the correct alternative out of the four and indicate it by blackening the appropriate circle in the Answer Sheet.

Question 79

Take care_____ your health.

- A of
- B About
- C For
- D over

Answer: A

Question 80

The speeding car_____ a man this morning.

- A Hit out
- B Hit about
- C Knocked down
- D Pushed out

Answer: C

Question 81

The terrorists made a vain attempt to _____ the bridge.

- A Blow out
- B Blow over
- C Blow down
- D Blow up

Answer: D

Question 82

Politics is the last _____ of scoundrels.

- A Resort
- B Retort
- C Report
- D Result

Answer: A

Instructions

In the following four Questions, four alternatives are given for the idiom/Phrase underlined. Choose the alternative which best expresses the meaning of the idiom/phrase and mark it in answer sheet.

Question 83

This argument does not hold water.

- A Seem approvable
- B Seem rejectable
- C Seem acceptable
- D Seem logical

Answer: D

Question 84

The truant school boy told cock-and -bull stories to escape punishment.

- A Interesting and
- B Authentic and thrilling realistic
- C Absurd unbelievable
- D Drab and boring unbelievable

Answer: C

Question 85

Rohini reached the examination hall in the nick of time.

- A Just in time
- B Just after time
- C Just before time
- D Very late

Answer: A

Question 86

To be down to earth

- A To be pretentious
- B To be impractical
- C To be unreasonable
- D To be realistic

Answer: D

Instructions

In the following Four Questions, some parts of the sentence have error and some are correct. Find out which part of a sentence has an error and blacken the circle corresponding to the appropriate correct option. If a sentence is free from error, blacken the circle corresponding to "No error" in the Answer Sheet.

Question 87

We, in India can look forward to a comfortable and settle life in the twenty-first century.

- A To a comfortable and settle
- B We, in India can look forward
- C No error
- D Life in the twenty-first century.

Answer: A

Question 88

One should have their teeth checked every six months.

- A Every six months.
- B One should have
- C No error
- D Their teeth checked

Answer: D

Question 89

A honest person is upright in speech, thought and deed.

- A A honest person
- B No error
- C In speech, thought and deed
- D Is upright

Answer: A

Question 90

It is painful to saw that some youngsters are killing time without doing anything useful.

- A It is painful to saw that

- B** Killing time without doing anything useful
- C** No error
- D** Some youngsters are

Answer: A

Instructions

In the following Two questions, a sentence has been given in Direct/Indirect. Out of the four alternatives suggested, select the one which best expresses the same sentence in Indirect/direct and mark your answer in the Answer Sheet.

Question 91

Robin said, 'hurrah I have topped again,'

- A** Robin exclaimed joyfully that he had been topped again.
- B** Robin exclaimed joyfully that he has topped again.
- C** Robin exclaimed joyfully that he had topped again
- D** Robin exclaimed joyfully that he would have topped again.

Answer: C

Question 92

Ravi asked me, "Have you seen the Taj Mahal ?"

- A** Ravi asked me if I saw the Taj Mahal
- B** Ravi asked me did I see the Taj Mahal
- C** Ravi asked me if I have seen the Taj Mahal
- D** Ravi asked me if I had seen the Taj Mahal

Answer: D

Instructions

In the following Four Question, out of the four alternatives, choose the one which best expresses the meaning of the given word and mark it in the Answer Sheet.

Question 93

Mistake

- A Precise
- B Accurate
- C Mistook
- D Error

Answer: D

Question 94

Acquire

- A Lose
- B Renounce
- C Procure
- D Relinquish

Answer: C

Question 95

Filthy

- A Clean
- B Dirty
- C Spotless
- D Immaculate

Answer: B

Question 96

Annoy

- A Revoke
- B Lazy
- C Offend

D Refuse

Answer: C

Instructions

In the following Four Question, four words are given in each question, out Of which only one word is correctly spelt. Find the correctly spelt word and mark your answer in the Answer Sheet.

Question 97

Find the correctly spelt word.

A Alkale

B Alkali

C Alkeli

D Alkalie

Answer: B

Question 98

Find the correctly spelt word.

A Decesive

B Deciseev

C Decesieve

D Decisive

Answer: D

Question 99

Find the correctly spelt word.

A Amature

B Amateur

C Amateaur

D Amatuer

Answer: B

Question 100

Find the correctly spelt word.

- A Millennium
- B Millenium
- C Millanium
- D Milennium

Answer: A

Quant

Instructions

For the following questions answer them individually

Question 101

If $\sin(90^\circ - \theta) + \cos \theta = \sqrt{2} \cos(90^\circ - \theta)$, then the value of cosec θ is

- A $\frac{1}{\sqrt{2}}$
- B $\sqrt{\frac{3}{2}}$
- C $\frac{2}{3}$
- D $\frac{1}{\sqrt{3}}$

Answer: B

Explanation:

Given,

$$\sin(90^\circ - \theta) + \cos \theta = \sqrt{2} \cos(90^\circ - \theta) \dots \dots \dots (1)$$

We know that, $\sin(90^\circ - \theta) = \cos \theta$ and $\cos(90^\circ - \theta) = \sin \theta$

Now, Equation (1) can be written as,

$$\cos \theta + \cos \theta = \sqrt{2} \sin \theta \text{ (or) } 2 \cos \theta = \sqrt{2} \sin \theta$$

Squaring on both sides we get,

$$2 \cos^2 \theta = \sin^2 \theta$$

$$\Rightarrow 2(1 - \sin^2 \theta) = \sin^2 \theta \Rightarrow 2 - 2\sin^2 \theta = \sin^2 \theta$$

$$\Rightarrow 2 = 3\sin^2 \theta \Rightarrow 2 = 3\left(\frac{1}{\operatorname{cosec}^2 \theta}\right) \Rightarrow \operatorname{cosec}^2 \theta = \frac{3}{2}$$

$$\Rightarrow \operatorname{cosec} \theta = \sqrt{\frac{3}{2}}$$

Hence, option B is the correct answer.

Question 102

A shopkeeper sold article at a loss of 20%. But if he could sell it at ₹200 more, he could earn a profit of 5%. The cost price of the article is

A ₹800

B ₹1,000

C ₹1,200

D ₹600

Answer: A

Explanation:

Let, cost price be $100x$ then selling price will be $80x$

If he sold the article for 200 more then he would earn a profit of 5%

$$105x = 80x + 200$$

$$25x = 200$$

$$x = 8$$

Cost price = 800.

Hence, option A is the correct answer.

Question 103

If ABCD is a cyclic quadrilateral with $\angle A = 50^\circ$, $\angle B = 80^\circ$, then $\angle C$ and $\angle D$ are

A $115^\circ, 115^\circ$

B $110^\circ, 120^\circ$

C $100^\circ, 130^\circ$

D $130^\circ, 100^\circ$

Answer: D

Explanation:

We know that, sum of opposite angles in a cyclic quadrilateral is 180°

$$\therefore \angle A + \angle C = 180^\circ \text{ and } \angle B + \angle D = 180^\circ$$

$$\Rightarrow 50^\circ + \angle C = 180^\circ \text{ (or) } \angle C = 130^\circ$$

$$\Rightarrow 80^\circ + \angle D = 180^\circ \text{ (or) } \angle D = 100^\circ$$

Hence, option D is the correct answer.

Question 104

By melting two solid metallic spheres of radii 1 cm and 6 cm, a hollow sphere of thickness 1 cm is made. The external radius of the hollow sphere will be

A 6 cm

B 7 cm

C 9 cm

D 8 cm

Answer: C

Explanation:

Given $r_1 = 1$ cm and $r_2 = 6$ cm

$$\text{Volume of 1st sphere} = \frac{4}{3}\pi r_1^3 = \frac{4}{3}\pi 1^3 = \frac{4}{3}\pi$$

$$\text{Volume of 2nd sphere} = \frac{4}{3}\pi r_2^3 = \frac{4}{3}\pi (6)^3$$

$$\text{Combined volume of two spheres} = \frac{4}{3}\pi (217)$$

Let outer radius of hollow sphere = x then inner radius = $x - 1$

Volume of the hollow sphere is given by,

$$\frac{4}{3}\pi (x^3 - (x - 1)^3) = \frac{4}{3}\pi (217)$$

$$x^3 - (x - 1)^3 = 217$$

$$x^3 - x^3 - 1 - 3x^2 + 3x = 217$$

$$3x^2 - 3x - 216 = 0$$

$$x = 9 \text{ or } -8 \text{ (which cannot be a solution)}$$

Hence, option C is the correct answer.

Question 105

The number between 4000 and 5000 that is divisible by each of 12, 18, 21 and 32 is

- A 4302
- B 4032
- C 4023
- D 4203

Answer: B

Explanation:

LCM of 12,18,21,32 is 252

Multiples of 252 between 4000 and 5000 are 4032, 4284, 4536, 4788.

4032 is present in the options.

Hence, option B is the correct answer.

Question 106

The side BC of a triangle ABC is extended to D . If $\angle ACD = 112^\circ$ and $\angle B = \frac{3}{4}$ of $\angle A$, then the measure of $\angle B$ is

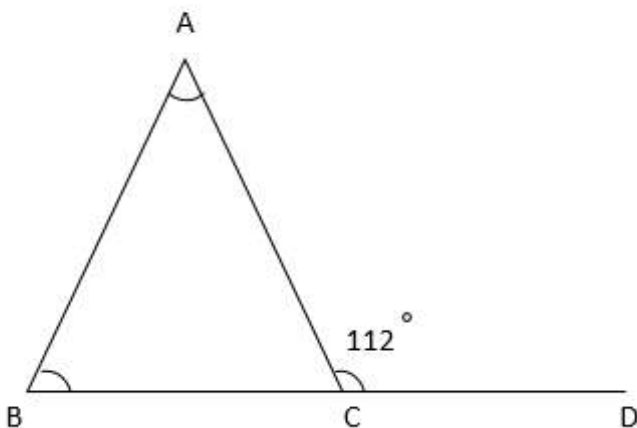
- A 45°
- B 64°
- C 48°
- D 30°

Answer: C

Explanation:

Given $\angle B = \frac{3}{4}$ of $\angle A$ (1)

An exterior angle of a triangle is equal to sum of the opposite interior angles.



$\therefore \angle A + \angle B = 112^\circ$

Substitute equation (1) in the above equation

$$\frac{4}{3}(\angle B) + \angle B = 112^\circ$$

$$(\angle B)\left(\frac{7}{3}\right) = 112^\circ$$

$$\angle B = 48^\circ$$

Hence, option C is the correct answer.

Question 107

The measure of each interior angle of a regular polygon with 8 sides is

A 100°

B 45°

C 120°

D 135°

Answer: D

Explanation:

Formula to find the sides of a polygon = $(n-2)180 / n$

$$= (6 \times 180) / 8$$

$$= 135 \text{ degrees}$$

Hence, option D is the correct answer.

Question 108

A and B invest in a business in the ratio 3 : 2 if 5% of the total profit goes to charity and A's share in profit is ₹8,550, then total profit is

A ₹14,250

B ₹15,760

C ₹15,735

D ₹15,000

Answer: D

Explanation:

Let the investments of A and B be $3x$ and $2x$ and total profit 'T'

Then profit earned by A and B is,

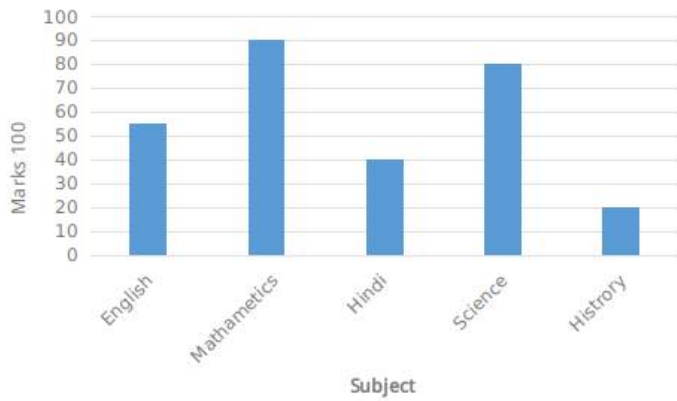
$$\frac{3}{5} (95\% \text{ of } T) = 8,550$$

$$T = 30 \times 5 \times 100 = 15,000$$

Hence, option D is the correct answer.

Instructions

The bar graph is representing marks of a student in different subjects. Study the bar graph and answer 5 questions.



Question 109

In which subject the student is poor ?

- A Science
- B English
- C History
- D Mathematics

Answer: C

Explanation:

The marks obtained by the student in different subjects,

English = 55, Mathematics = 90, Hindi = 40, Science = 80, History = 20

Student got less marks in history.

Hence, option C is the correct answer.

Question 110

What is the average percentage obtained by the student ?

- A 57%
- B 80%
- C 90%

D 63%

Answer: A

Explanation:

Total marks obtained by the student = 285

Total marks = 500

Average percentage obtained by the student = (Total marks obtained/ Total marks)

\therefore Average percentage = $(285 / 500)$

= $(57/100)$ or 57%

Hence, option A is the correct answer.

Question 111

What is the ratio of the highest marks to the lowest marks obtained by the student ?

A 2 : 11

B 11 : 2

C 9 : 2

D 2 : 9

Answer: C

Explanation:

Highest marks obtained = 90

Lowest marks obtained = 20

Their Ratio = $(90:20)$

= 9:2

Hence, option C is the correct answer.

Question 112

What are the average marks obtained by the student ?

A 63

B 57

C 80

D 48

Answer: B

Explanation:

Total marks secured by the student $\Rightarrow 55 + 90 + 40 + 80 + 20 = 285$

Average marks = (Total score / number of subjects)

= (285 / 5)

= 57

Hence, option B is the correct answer.

Question 113

At what subject the student is sharp ?

A Mathematics

B English

C History

D Science

Answer: A

Explanation:

The marks secured by the student in different subjects,

English = 55, Mathematics = 90, Hindi = 40, Science = 80, History = 20.

He secured more marks in mathematics. We can say that he is sharp in mathematics.

Hence, option A is the correct answer.

Instructions

For the following questions answer them individually

Question 114

If $\sin A - \cos A = \frac{\sqrt{3}-1}{2}$, then the value of $\sin A \cos A$ is

A $\frac{3}{2}$

B $\frac{1}{\sqrt{3}}$

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

D $\frac{\sqrt{3}}{4}$

Answer: D

Question 115

A man gives 50% of his money to his son and 30% to his daughter. 80% of the rest he has donated to a trust. If he is left with ₹16,000 now, how much money did he have in the beginning ?

A ₹8,00,000

B ₹4,00,000

C ₹40,000

D ₹80,000

Answer: B

Explanation:

Man gives 50% to his son and 30% to his daughter. Now, he is left with 20%.

He donated 80% of this remaining amount(20%) to a trust. Remaining amount is,

$20\% \text{ of } 20\% = 1/25$

This is equal to 16,000

$1/25 \times x = 16,000$

$x = 4,00,000$

Hence, option B is the correct answer.

Question 116

Two numbers are in ratio 5 : 8. If their difference is 48, then the smallest number is

A 96

B 80

C 64

D 128

Answer: B

Explanation:

Let the two numbers be $5x$ and $8x$

Given difference = 48

$3x = 48$

$x = 16$.

Smallest number $\Rightarrow 16 \times 5 = 80$.

Hence, option B is the correct answer.

Question 117

The value of $\cos 1^\circ \cos 2^\circ \cos 3^\circ \dots \cos 180^\circ$ is

- A 1
- B 0
- C $\frac{\sqrt{3}}{2}$
- D $\frac{1}{2}$

Answer: B

Explanation:

$\cos 1^\circ \cos 2^\circ \cos 3^\circ \dots \cos 180^\circ$

We know that $\cos 90^\circ = 0$

$\cos 1^\circ \cos 2^\circ \cos 3^\circ \dots \cos 90^\circ \dots \cos 180^\circ$

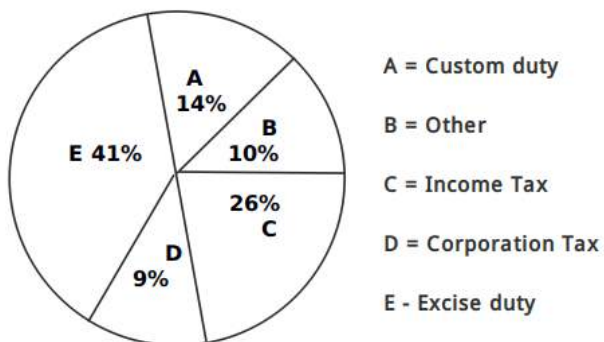
$\cos 1^\circ \cos 2^\circ \cos 3^\circ \dots (0) \dots \cos 180^\circ$

When 0 is multiplied with anything it is always '0'

Hence, option B is the correct answer.

Instructions

Revenue earned by the Central Government is given in Pie-chart study the pie-chart and answer 4 questions.



Question 118

The ratio of revenue earned from excise duty and custom duty to that of others is

- A 11 : 5
- B 11 : 2
- C 11 : 3

D 11 : 4

Answer: B

Explanation:

Let total revenue earned by the central government be 'x'

Then, the ratio of revenue earned from excise duty and custom duty to that of others is,

$(41 + 14)\%$ of x : 10% of x

55 : 10 (or) 11:2

Hence, option B is the correct answer.

Question 119

If the percentage of revenue earned by the Central Government from Corporation Tax is x times to that of the percentage of money earned from Excise Duty, then the value of x is

A $\frac{14}{21}$

B $\frac{41}{14}$

C $\frac{9}{41}$

D $\frac{41}{9}$

Answer: C

Question 120

The ratio of revenue of the Central Government earned from the Custom Duty and Income Tax is

A 9 : 26

B 10 : 9

C 14 : 41

D 7 : 13

Answer: D

Explanation:

Let total revenue of the central government = x

Custom duty = 14% of x and Income tax = 26% of x

Ratio of revenue of the Central Government earned from the Custom Duty and Income Tax is

$\Rightarrow 14\%$ of x : 26% of x

$\Rightarrow 7 : 13$

Hence, option D is the correct answer.

Question 121

If the income of Central Government from excise Duty is ₹28,618 crores, then the total revenue earned by the government is

A ₹45,600 crores

B ₹47,200 crores

C ₹69,800 crores

D ₹58,900 crores

Answer: C

Explanation:

Let total revenue earned by the government = x

Given excise duty = 28,618 i.e 41% of $x = 28,618$ (or) 1% = 698

Now, $x = 698 \times 100 = 69800$

Hence, option C is the correct answer.

Instructions

For the following questions answer them individually

Question 122

Janardan completes $\frac{2}{3}$ of his work in 10 days. Time he will take to complete $\frac{3}{5}$ of the same work, is

A 9 days

B 6 days

C 4 days

D 8 days

Answer: A

Explanation:

Let $\frac{3}{5}$ th of work be completed in x days

$\frac{2}{3}$ ---- 10days (given)

$\frac{3}{5}$ ---- x days

After cross multiplication,

$$\frac{2x}{3} = \frac{3}{5}(10) \Rightarrow 2x = 18$$

$$x = 9 \text{ days}$$

Hence, option A is the correct answer.

Question 123

The simple interest on ₹36,000 for the period from 5th January to 31st May, 2013 at 9.5% per annum is

A ₹1,368

B ₹1,425

C ₹1,400

D ₹1,338

Answer: A

Explanation:

Given P = 36,000, R = 9.5% and

Time period from 5th January to 31st May = 146 days

$$\text{Simple interest} = \frac{PTR}{100} = (36,000 \times 9.5 \times \frac{146}{365}) / (100)$$

$$\text{S.I} = \frac{499320}{365} = 1368$$

Hence, option A is the correct answer.

Question 124

The hypotenuse of a right-angled triangle is 39 cm and the difference of other two sides is 21 cm. Then the area of the triangle is

A 540 sq.cm

B 270 sq.cm

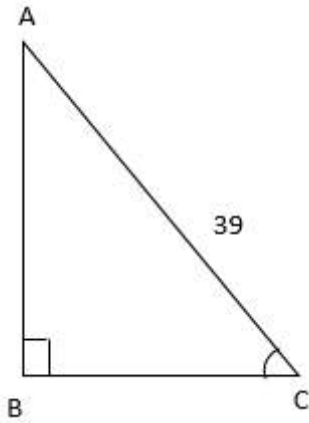
C 450 sq.cm

D 180 sq.cm

Answer: B

Explanation:

Let vertices of the triangle be A,B,C



$$AB^2 + BC^2 = AC^2 = 39^2 = 1521 \dots\dots(1)$$

$$\text{Let } (AB - BC)^2 = AB^2 + BC^2 - 2(AB)(BC) \dots\dots(2)$$

Substitute equation (1) in equation (2)

$$21^2 = 1521 - 2(AB)(BC) \text{ (Given } AB - BC = 21)$$

$$441 = 1521 - 2(AB)(BC) \Rightarrow 1080 = 2(AB)(BC) \Rightarrow (AB)(BC) = 540$$

$$\text{Area of the triangle} = \frac{1}{2} \times \text{base} \times \text{height} = \frac{1}{2}(AB)(BC) = \frac{1}{2}(540) = 270$$

Hence, option B is the correct answer.

Question 125

Work done by $(x+4)$ men in $(x+5)$ days is equal to the work done by $(x-5)$ men in $(x+20)$ days. Then the value of x is

- A 25
- B 30
- C 15
- D 20

Answer: D

Question 126

if $(2, 0)$ is a solution of the linear equation $2x+3y=K$, then the value of K is

- A 5
- B 2
- C 6

D 4

Answer: D

Explanation:

Given (2,0) is a solution of the equation $2x + 3y = k$.

Substitute $x = 2$ and $y = 0$

$$k = 2(2) + 3(0) = 4$$

Hence, option D is the correct answer.

Question 127

The medians CD and BE of a triangle ABC intersect each other at O. The ratio of areas of $\triangle ODE : \triangle ABC$ is equal to

A 1 : 12

B 12 : 1

C 4 : 3.

D 3 : 4

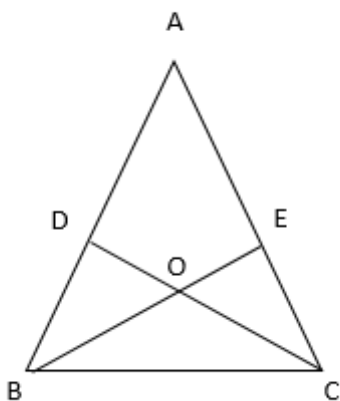
Answer: A

Explanation:

$\triangle OED$ and $\triangle OCB$ are similar. We know that sides of similar triangles are in the same ratio.

$$OE : OB = 2 : 1$$

If two triangles are similar then the ratio of their areas is equal to the ratio of squares of their corresponding sides.



Equation can be written as,

$$\frac{OE^2}{OB^2} = \frac{\text{Area of triangle } ODE}{\text{Area of triangle } BCO}$$

$$\text{Area of } \triangle BCO = 4(\text{Area of } \triangle ODE)$$

$\frac{1}{3}$ (Area of $\triangle ABC$) = 4 (Area of triangle $\triangle ODE$) (\because area of $\triangle BCO = \frac{1}{3}$ area of $\triangle ABC$)

Area of $\triangle ABC = 12$ (Area of $\triangle ODE$)

$\triangle ODE : \triangle ABC = 1 : 12$

Hence, option A is the correct answer.

Question 128

Two trains of lengths 150 m and 180 m respectively are running in opposite directions on parallel tracks. If their speeds be 50 km/hr and 58 km/hr respectively, in what time will they cross each other

A 30 seconds

B 15 seconds

C 22 seconds

D 11 seconds

Answer: D

Explanation:

Trains are moving in the opposite directions,

Relative distance = $(150 + 180) = 330$ m

Relative speed = $(50 + 58) \times \frac{5}{18}$ m/sec = $108 \times \frac{5}{18}$ m/sec = 30 m/sec

Relative time can be written as, $T = \frac{D}{S} = \frac{330}{30} = 11$ seconds

Hence, option D is the correct answer.

Question 129

If the compliment of an angle is one-fourth of its supplementary angle, then the angle is

A 120°

B 60°

C 90°

D 30°

Answer: B

Explanation:

Let the angle be A

Complement of an angle with A is given by $(90^\circ - A)$

Supplement of an angle with A is given by $(180^\circ - A)$

Now equation can be written as,

$$90^\circ - A = \frac{1}{4}(180^\circ - A)$$

$$90^\circ - A = (45^\circ - \frac{A}{4})$$

$$A(1 - \frac{1}{4}) = 45^\circ$$

$$A = 60^\circ$$

Hence, option B is the correct answer.

Question 130

If $\tan \left[\frac{\pi}{2} - \frac{\alpha}{2} \right] = \sqrt{3}$, then the value of $\cos \alpha$ is

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

B $\frac{1}{2}$

C $\frac{1}{\sqrt{2}}$

D 0

Answer: B

Explanation:

Given ,

$$\tan \left[\frac{\pi}{2} - \frac{\alpha}{2} \right] = \sqrt{3}$$

$$\cot \left[\frac{\alpha}{2} \right] = \sqrt{3}$$

$$\frac{\alpha}{2} = 30^\circ (\because \cot 30^\circ = \sqrt{3})$$

$$\alpha = 60^\circ$$

$$\cos \alpha = \cos 30^\circ = \frac{1}{2}$$

Hence, option B is the correct answer.

Question 131

A number between 1000 and 2000 which when divided by 30, 36 & 80 gives a remainder 11 in each case is

A 1451

B 1641

C 1712

D 1523

Answer: A

Explanation:

LCM of given 3 numbers (30, 36, 80) = 720

Multiple of 720 between 1000 and 2000 is 1440.

∴ Number which gives a remainder 11 in each case (1440 + 11) = 1451

Hence, option A is the correct answer.

Question 132

51% of a whole number is 714, 25% of that number is

A 450

B 550

C 250

D 350

Answer: D

Explanation:

Let the number be x

$$0.51x = 714 \text{ (or) } x = 1400$$

$$25\% \text{ of that number} = 0.25 \times 1400 = 350$$

Hence, option D is the correct answer.

Question 133

Arrangement of the fractions $\frac{4}{3}$, $-\frac{2}{9}$, $-\frac{7}{8}$, $\frac{5}{12}$ into ascending order are

A $-\frac{7}{8}$, $-\frac{2}{9}$, $\frac{5}{12}$, $\frac{4}{3}$

B $-\frac{2}{9}$, $-\frac{7}{8}$, $\frac{5}{12}$, $\frac{4}{3}$

C $-\frac{2}{9}$, $-\frac{7}{8}$, $\frac{4}{3}$, $\frac{5}{12}$

D $-\frac{7}{8}$, $-\frac{2}{9}$, $\frac{4}{3}$, $\frac{5}{12}$

Answer: A

Explanation:

Given fractions $\frac{4}{3}$, $-\frac{2}{9}$, $-\frac{7}{8}$, $\frac{5}{12}$

Multiply 72(LCM) with each fraction, then we get

96, -16, -63, 30

Arrange them in ascending order i.e $-63 < -16 < 30 < 96$ (or) $-\frac{7}{8} < -\frac{2}{9} < \frac{5}{12} < \frac{4}{3}$

Hence, option A is the correct answer.

Question 134

The average marks of 50 students in a class is 72 and the average marks of boys and girls are 70 and 75 respectively. The number of boys in the class is

A 35

B 25

C 20

D 30

Answer: D

Explanation:

Given average marks of 50 students in a class is 72. Then total marks is given by,

$$T = 50 \times 72 = 3600$$

If total number of boys are B then total girls will be (50-B).

And also average marks of boys is 70 and that of girls is 75. Then equation can be written as,

$$T = 70(B) + 75(50 - B) \Rightarrow 3600 = 70B - 75B + 3750$$

$$\Rightarrow 5B = 150 \Rightarrow B = 30$$

Hence, option D is the correct answer.

Question 135

After allowing 15% discount, the selling price of a radio becomes ₹255. The marked price is

A ₹500

B ₹600

C ₹300

D ₹400

Answer: C

Explanation:

Given selling price = 255.

A discount of 15% is given. The equation can be written as,

$$85\% \text{ of MRP} = 255 \text{ (or) } 0.85 \times \text{MRP} = 255 \text{ (or) MRP} = 300$$

Hence, option C is the correct answer.

Question 136

A cuboidal shaped water tank 2.1 m long and 1.5 m broad is half filled with water. If 630 litres more water is poured into that tank, the water level will rise

- A 0.15 cm
- B 0.18 cm
- C 2 cm
- D 0.20 metre

Answer: D

Explanation:

Length = 2.1m breadth = 1.5m (given)

We know volume of the cuboid = Length x breadth x height

∴ Rise in water is given by,

$$\text{Length} \times \text{breadth} \times \text{height} = 630 \text{ litres (or) } \frac{630}{1000} m^3$$

$$2.1 \times 1.5 \times h = \frac{630}{1000} \Rightarrow h = \left(\frac{63}{100}\right)\left(\frac{10}{21}\right)\left(\frac{10}{15}\right)$$

$$\Rightarrow h = 0.2 \text{ m}$$

Hence, option D is the correct answer.

Question 137

In a class there are 30 boys and their average age is 17 years. If one boy aged 18 years leaves and other joins the class, then average age becomes 16.9 years. The age of the new boy is

- A 11 years
- B 15 years
- C 25 years
- D 13 years

Answer: B

Explanation:

$$\text{Total age of 30 boys} = 30 \times 17 = 510$$

$$\text{If one boy aged 18 years leaves, then total age will be } (510 - 18) = 492$$

$$\text{Total age after the new boy joins the class} = 16.9 \times 30 = 507$$

\therefore Age of the new boy = $507 - 492 = 15$ years

Hence, option B is the correct answer.

Question 138

The difference between the greatest and least prime numbers which are less than 100 is

A 97

B 94

C 96

D 95

Answer: D

Explanation:

Greatest prime number less than 100 is 97 and least is 2.

Difference between greatest and least prime numbers below 100 = $(97 - 2) = 95$

Hence, option D is the correct answer.

Question 139

By selling 12 kg of potatoes for ₹63, a shopkeeper gains 5%. What is his gain or loss percent if he sells 50 kg of the same potatoes for ₹247.50?

A No profit no gain

B 1% loss

C 2.5% loss

D 1% profit

Answer: B

Explanation:

The shopkeeper sells 12kg of potatoes for 63rs i.e 1kg for 5.25rs

Let cost price = $100x$. As he gains 5% the equation can be written as,

$$105x = 5.25rs \text{ (or) } 100x = 5rs$$

\therefore Cost price = 5rs

He sells 50 kg of the same potatoes for 247.50rs (or) 1kg = 4.95rs

$$\text{Gain or loss percentage} = \left(\frac{4.95 - 5}{5} \right) (100) = 0.05 \times 100 = -1\%$$

There will be a loss of 1%

Hence, option B is the correct answer.

Question 140

If the sum of all interior angle of a regular polygon is 14 right angles, then its number of sides is

A 7

B 9

C 6

D 8

Answer: B

Explanation:

Given, sum of interior angles of a polygon = $14 \times 90 = 1260$

We know that, sum of interior angles of a polygon = $(n - 2) \times 180^\circ$

$$1260 = (n - 2) \times 180^\circ$$

$$n - 2 = 7 \text{ (or) } n = 9$$

Hence, option B is the correct answer.

Question 141

If $\frac{a}{b} = \frac{25}{6}$, then the value of $\frac{a^2 - b^2}{a^2 + b^2}$ is

A $\frac{589}{661}$

B $\frac{589}{651}$

C $\frac{625}{36}$

D $\frac{661}{589}$

Answer: A

Explanation:

Given $\frac{a}{b} = \frac{25}{6}$

Squaring on both sides we get,

$$\frac{a^2}{b^2} = \frac{625}{36} \dots\dots(1)$$

We know that, $\frac{a}{b}$ can be written as $\frac{a-b}{a+b}$

Therefore Equation (1) can be written as,

$$\frac{a^2 - b^2}{a^2 + b^2} = \frac{625 - 36}{625 + 36} = \frac{589}{661}$$

Hence, option A is the correct answer.

Question 142

Two trains start at the same time from Aligarh and Delhi and proceed towards each other at the rate of 14 km and 21 km per hour respectively. When they meet, it is found that one train has travelled 70 km more than the other. The distance between two stations is

A 350 km

B 140 km

C 210 km

D 300 km

Answer: A

Explanation:

Let distance travelled by one train be 'x' and other train be 'x + 70'

Two trains take same time, thus equation can be written as

$$\frac{D_1}{D_2} = \frac{S_1}{S_2}$$

$$\frac{21}{14} = \frac{x+70}{x} \Rightarrow 21x = 14x + 980 \Rightarrow 7x = 980$$

$$\Rightarrow x = 140$$

Distance between two trains $(2x + 70) = 2(140) + 70 = 350$ kms

Hence, option A is the correct answer.

Question 143

The list price of an electric fan is ₹300. If two successive discounts of 15% and 10% are allowed, its selling price would be

A ₹227.50

B ₹225

C ₹230

D ₹229.50

Answer: D

Explanation:

Given, Marked price of the fan = 300. If two successive discounts of 15% and 10% are allowed,

Selling price = 85% of 90% of 300 = $0.85 \times 0.9 \times 300 = 0.765 \times 300 = 229.5$

Hence, option D is the correct answer.

Question 144

Height of a prism-shaped part of a machine is 8 cm and its base is an isosceles triangle, whose each of the equal sides is 5 cm and remaining side is 6 cm. The volume of the part is

- A 90 cm
- B 86 cm
- C 120 cm
- D 96 cm

Answer: D

Explanation:

Given height of the prism = 8 cm(1)

Area of the base,

$$\Rightarrow \frac{b}{4} \sqrt{4a^2 - b^2} \text{ (here } a = 5, b = 6)$$

$$\frac{6}{4} \sqrt{4(5)^2 - 6^2}$$

$$\frac{3}{2} \sqrt{64} = 12 \text{(2)}$$

Volume of the part = Area of the base x height of the prism

Substitute equation (1) and (2) in the above equation

$$\text{Volume of the part} = 12 \times 8 = 96 \text{ cm}$$

Hence, option D is the correct answer.

Question 145

The value of expression $\sqrt{6 + \sqrt{6 + \sqrt{6 + \dots}}}$ is

- A 2
- B 30
- C 5
- D 3

Answer: D

Explanation:

$$\text{Let } \sqrt{6 + \sqrt{6 + \sqrt{6 + \dots}}} = x \dots\dots(1)$$

$$\sqrt{6 + (\sqrt{6 + \sqrt{6 + \dots}})} = x \dots\dots(2)$$

Substitute equation (1) in (2)

$$\sqrt{6 + (x)} = x \text{ (or) } x^2 - x - 6 = 0$$

$x = 3, -2$. But ' x ' value should be positive

$$\therefore x = 3$$

Hence, option D is the correct answer.

Question 146

If $A : B = 2 : 1$ & $A : C = 1 : 3$ then $A : B : C$

A 3 : 2 : 1

B 1 : 3 : 2

C 2 : 1 : 6

D 1 : 2 : 6

Answer: C

Explanation:

Given,

$$A : B = 2 : 1 \text{ \&}$$

$$A : C = 1 : 3 = (1 \times 2) : (3 \times 2) = 2 : 6$$

$$\therefore A : B : C = 2 : 1 : 6$$

Hence, option C is the correct answer.

Question 147

The rate of simple interest per annum of bank being decreased from 5% to $3\frac{1}{2}$ %, the annual income of a person from interest was less by ₹105. The sum deposited at the bank was

A ₹7,000

B ₹6,000

C ₹7,200

D ₹6,800

Answer: A

Explanation:

Given, rate of interest decreases from 5% to $3\frac{3}{2}\%$ and annual income of a person from interest was less by 105rs

Then the difference is given by,

$$5\% - 3\frac{3}{2}\% = 105 \text{ (or) } \frac{(10-7)}{2}\% = 105 \text{ (or) } 1\% = 70$$

$$\Rightarrow 100\% = 7000$$

Hence, option A is the correct answer.

Question 148

If $x + \frac{1}{x} = 3$, then the value of $x^2 + \frac{1}{x^2}$ is

A 13

B 11

C 9

D 7

Answer: D

Explanation:

$$\text{Given, } x + \frac{1}{x} = 3$$

Squaring on both sides, we get

$$x^2 + \frac{1}{x^2} + 2 = 9$$

$$x^2 + \frac{1}{x^2} = 7$$

Hence, option D is the correct answer.

Question 149

The graph of linear equation $y = x$ passes through the point

A $(0, \frac{3}{2})$

B (1,1)

C $(-\frac{1}{2}, \frac{1}{2})$

D $(\frac{3}{2}, -\frac{3}{2})$

Answer: B

Explanation:

Only option B satisfies the given equation i.e

After substituting $x=1$ and $y=1$ in the given equation we get LHS equal to RHS.

Hence, option B is the correct answer.

Question 150

If $\cos 20^\circ = m$ and $\cos 70^\circ = n$, then the value of $m^2 + n^2$ is

A $\frac{1}{2}$

B 1

C $\frac{1}{\sqrt{2}}$

D $\frac{3}{2}$

Answer: B

Explanation:

$$m^2 + n^2 = \cos^2 20^\circ + \cos^2 70^\circ$$

$$\Rightarrow \cos^2 (90^\circ - 20^\circ) + \cos^2 70^\circ$$

$$\Rightarrow \sin^2 70^\circ + \cos^2 70^\circ$$

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

Hence, option B is the correct answer.

General Awareness

Instructions

For the following questions answer them individually

Question 151

Pawel Pawlikowskis film 'Ida' won the Best Foreign Language Film Award at the 87th Academy Awards in 2015. This film is from which country ?

A Canada

B Poland

C Argentina

D South Africa

Answer: B

Question 152

How many members are there in Public Accounts Committee ?

- A 28 members
- B 20 members
- C 22 members
- D 30 members

Answer: C

Question 153

Who was the creator of the famous Rock Garden of Chandigarh ?

- A Nek Chand
- B Khuswant Singh
- C Edward Baker
- D Charles Corbusier

Answer: A

Question 154

Who is the first Indian woman to win an Asian Games gold in 400 m runs ?

- A Sania Mirza
- B P.T. Usha
- C Shiny Abraham
- D Kamaljit Sandhu

Answer: D

Question 155

Who invented the mobile phone ?

- A Chuck Hull
- B Raymond Samuel Tomlinson
- C Martin Cooper
- D Tim Berners - Lee

Answer: C

Question 156

The basic unit of biosystematics is

- A Florotype
- B Genotype
- C Phenotype
- D Ecotype

Answer: C

Question 157

Who is the only second Vice-President of India to get a second consecutive term after s. Radhakrishnan ?

- A Dr. Shankar Dayal Sharma
- B M.H. Ansari
- C K.R. Narayanan
- D B.S. Shekhawat

Answer: B

Question 158

The term GIGO is related to

- A Flexibility

- B** Accuracy
- C** Automatic
- D** Versatility

Answer: B

Question 159

An Organism that transmits disease from one individual to another is called

- A** Hybrid
- B** Clone
- C** Fragment
- D** Vector

Answer: D

Question 160

Which Indian ruler fought the Kalinga War ?

- A** Ashoka
- B** Chandragupta Maurya
- C** Shivaji
- D** Samudragupta

Answer: A

Question 161

Which decade is called as the 'Era of Decolonisation ?

- A** 1980's
- B** 1990's
- C** 1950's
- D** 1970's

Answer: C

Question 162

Name the Republic which was a confederacy of tribes in the 6th cen B.C.

- A Avanti
- B Kosala
- C Vajji
- D Gandhara

Answer: C

Question 163

Who was the founder of the Indian National Army ?

- A Gandhiji
- B Bal Gangadhar Tilak
- C Subhas Chandra Bose
- D Nehru

Answer: C

Question 164

Which of the following is true with reference to blood platelets ?

- A They have prominent neclue
- B They are also called thrombocytes
- C They have a pigment called haemoglobin
- D The are involved in phagocytosis

Answer: B

Question 165

Which of the following was the founder of the house of Peshawar ?

- A Balaji Vishwanath
- B Parsuram Triamsuk
- C Balaji Baji Rao
- D Ramachandra Pant

Answer: A

Question 166

An example of hormone is

- A Oxytocin
- B Renin
- C Peprin
- D Cytosine

Answer: A

Question 167

Find the odd one:

- A Samveda
- B Vishnu Parana
- C Rigveda
- D Yajurveda

Answer: B

Question 168

India's ranking on Global Corruption Index 2014 has been placed at _____ rank among 175 nations.

- A 85th
- B 83rd
- C 87th

D 81st

Answer: A

Question 169

What is the major cause of 'October Heat' ?

A Low pressure systems over the Indo-Gangetic

B Hot and dry weather

C High temperature associated with high humidity

D Very low velocity winds

Answer: A

Question 170

Kachakali dance form is associated with which State ?

A Andhra Pradesh

B Manipur

C Kerala

D Tamil Nadu

Answer: C

Question 171

The 'EL Nino' phenomena which sparks climatic extreme around the globe, originates in the

A Atlantic Ocean

B Pacific Ocean

C Sea of China

D Indian Ocean

Answer: B

Question 172

Which gas emitted b power stations causes acid rain ?

- A Nitrogen
- B Carbon dioxide
- C Sulphur dioxide
- D Helium

Answer: C

Question 173

Who won Australian Open Mixed Doubles Final 2015 ?

- A Murray (U.K.) and Maria Sharapova (Russia:
- B Djokovic (Serbia: and Serena Williams (U.S.A)
- C Kristina Mladenovic (France) and Daniel Nester (Caneda:
- D Martina Hingis (Switzerland: and Leander Paes (India:

Answer: D

Question 174

The State with highest production of wheat in year 2012-13 is

- A Tamil Nadu
- B Uttar Pradesh
- C West Bengal
- D Haryana

Answer: B

Question 175

S.I. unit of Magnetic flux is

- A *weber* – m^2

B *weber/m⁴*

C *weber*

D *weber/m*

Answer: C

Question 176

Name the two research stations maintained by India in Antarctica.

A Sagar Nidhi and Yamunotri

B Gangotri and Himadri

C None of these

D Maitri and Bharti

Answer: D

Question 177

Which part of the cinchona yields a drug ?

A Pericarp

B Endosperm

C Bark

D Leaf

Answer: C

Question 178

According to 2011 Census, the State having maximum population is

A Tamil Nadu

B Maharashtra

C Uttar Pradesh

D Kerala

Answer: C

Question 179

The process of arranging data in logical sequence is called

- A** Sorting
- B** Reproducing
- C** Summarizing
- D** Classifying

Answer: A

Question 180

What is the famous chipko movement associated with ?

- A** Trees
- B** Saving the tigers
- C** Saving the wetland
- D** None of these

Answer: A

Question 181

An ordinance issued by the Governor has to be passed by the Assembly within

- A** 10 weeks
- B** 12 weeks
- C** 8 weeks
- D** 6 weeks

Answer: D

Question 182

As a result of higher rate of inflation in India, the U.S. dollar will

- A Constant
- B Appreciate
- C Negligible
- D Depreciate

Answer: B

Question 183

Which endocrine gland is found in chest cavity ?

- A Thyroid gland
- B Adrenal gland
- C Pineal gland
- D Thymus gland

Answer: A

Question 184

The number of hydrogen bonds between guanine and cytosine in DNA is

- A 4
- B 1
- C 2
- D 3

Answer: D

Question 185

A semi enclosed coastal body of water which has to free connection with the open sea is called

- A Ria coast

B Estuary

C Fjord

D Cove

Answer: B

Question 186

As per Census of India, an Urban area with a population from 50,000 to 99,999 is named as

A Class IV town

B Class II town

C Class I town

D Class III town

Answer: B

Question 187

To reduce tooth decay most toothpastes contain a

A Bromide

B Fluoride

C Iodide

D Chloride

Answer: B

Question 188

Who is the author of the book 'The Three Mistakes in My Life ?

A Chetan Bhagat

B Jhumpa Lahiri

C Ruskin Bond

D Amrita Pritam

Answer: A

Question 189

Hydraulic brakes work on the principle of

- A** Newton's law
- B** Thomson's law
- C** Pascal's law
- D** Bernoulli's theorem

Answer: C

Question 190

The part of brain which controls emotional reactions in our body is

- A** Cerebrum
- B** Meninges
- C** Thalamus
- D** Hypothalamus

Answer: D

Question 191

If density of oxygen is times that of hydrogen, what will be their corresponding ratio of velocity of sound ?

- A** 1 : 4
- B** 2 : 1
- C** 1 : 16
- D** 4 : 1

Answer: A

Question 192

Seismography is the science of

- A Mountains
- B Earthquakes
- C Rivers
- D Volcanoes

Answer: B

Question 193

Cuba is the largest producer of

- A Sugar
- B Barley
- C Rice
- D Wheat

Answer: A

Question 194

Expand NABARD

- A National Bank for Asian Research Development
- B National Bank for Agricultural and Rural Development
- C National Bank for Agri Related Development
- D National Bank for Agricultural and Resource Development

Answer: B

Question 195

R.K. Laxman died on January 26, 2015. He was a leading _____ of India.

- A Playback Singer
- B Cartoonist
- C Kathakali Dancer

D Space Scientist

Answer: B

Question 196

Who has authored the book The Kingdom of God is Within You ?

A Henry David

B John Ruskin

C Mahatma Gandhi

D Leo Tolstoy

Answer: D

Question 197

Which of the following colour of light deviates least through the prism ?

A Yellow

B Green

C Red

D Violet

Answer: C

Question 198

A demand curve, which is parallel to the horizontal axis, showing quantity, has the price elasticity equal to

A Less than one

B Infinity

C One

D Zero

Answer: B

Question 199

Which city will host the 2022 Commonwealth Games (CWG)

- A** Montreal
- B** Colombo
- C** Glasgow
- D** Durban

Answer: D

Question 200

The deterioration of a metal by an electrochemical process is commonly termed as

- A** Corrosion
- B** Abrasion
- C** Erosion
- D** Passivation

Answer: A