

SSC CPO 06 June 2016 Morning Shift

Reasoning

Instructions

For the following questions answer them individually

Question 1

Select the related number from the given alternatives.

11 : 110 :: 15 : ?

- A 149
- B 210
- C 151
- D 200

Answer: B

Explanation:

Expression = 11 : 110 :: 15 : ?

The pattern followed is $n : n^2 - n$

Eg :- $(11)^2 - 11 = 110$

Similarly, $(15)^2 - 15 = 225 - 15 = 210$

=> Ans - (B)

Question 2

Select the related word from the given alternatives.

Happy : Dismal :: Proud : ?

- A Eminent
- B Humble
- C Fiery
- D Gratified

Answer: B

Explanation:

The given pairs are antonyms, dismal is the opposite of happy, similarly antonym of proud is **humble**.

=> Ans - (B)

Question 3

From the given alternative words, select the word which cannot be formed using the letters of the given word.

ABSTRACTIONISTS

- A ATTRACTION
- B INSTRUCTIONS
- C RATION
- D RACIAB

Answer: B

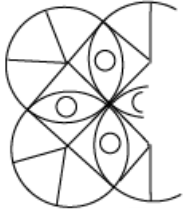
Explanation:

The word ABSTRACTIONISTS does not contain any 'U', thus the term **Instructions** cannot be formed.

=> Ans - (B)

Question 4

In the following questions, which answer figure will complete the pattern in the question figure ?



A figure1

B figure2

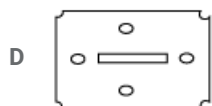
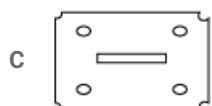
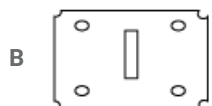
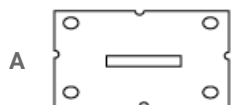
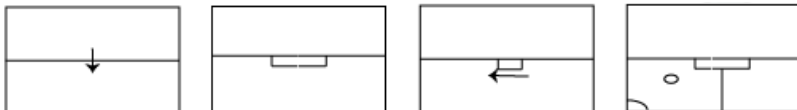
C figure3

D figure4

Answer: C

Question 5

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

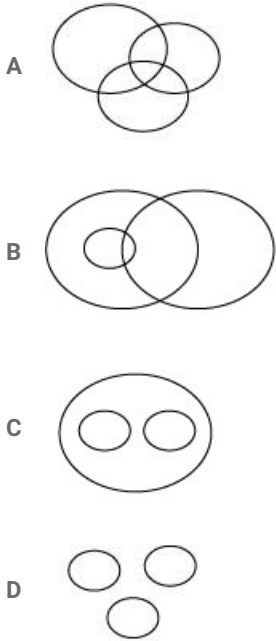


Answer: C

Question 6

Identify the diagram that best represents the relationship among the classes given.

Car, Motorcycles, Automobiles



Answer: C

Explanation:

Both car and motorcycles are type of automobiles, but are different from each other, hence the venn diagram that best describes above relation is :



=> Ans - (C)

Question 7

In the following question, some statements are given, followed by some conclusions. 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 : The successful test of Hydrogen bomb of North Korea is a threat to the United States and its ally countries.

Conclusions:

I : North Korea will declare a state of war against the US and its ally countries in the near future.

II : The US and its ally countries should not worry about North Korea's successful test of Hydrogen bomb as it has only increased its nuclear arsenal.

- A Only I follows
- B Only II follows
- C Neither I nor II follows
- D Both I and II follow

Answer: C

Explanation:

The given statement indicates that North Korea has successfully passes the Hydrogen Bomb test and it is a threat to the United States and its ally countries. But, it does not mean that North Korea will wage war on US or other countries, nor does it mean that they cannot

attack.

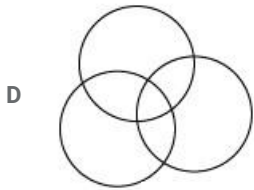
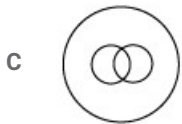
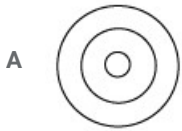
Thus, neither I nor II follows.

=> Ans - (C)

Question 8

Identify the diagram that best represents the relationship among the classes given.

Nitrogen, Air, Ice



Answer: B

Explanation:

Nitrogen is in gaseous state (air), but ice is different (solid state). Hence, the venn diagram that best describes above relation is :



=> Ans - (B)

Question 9

In the following question, some statements are given, followed by some conclusions. 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:

Some cats are dogs

All dogs are black.

Conclusions:

I. Some cats are black

II. Some dogs are black

A Neither Conclusion I nor II follows

B Both Conclusions I and II follows

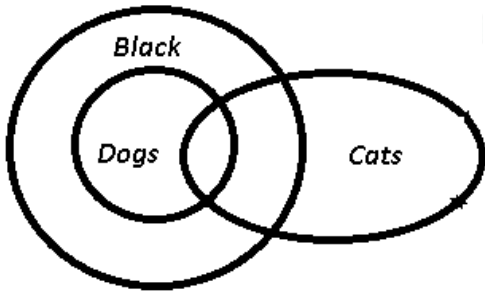
C Only Conclusion I follows

D Only Conclusion II follows

Answer: B

Explanation:

The venn diagram for above statements is :



Conclusions:

I. Some cats are black = true

II. Some dogs are black = true

Thus, both Conclusions I and II follows.

=> Ans - (B)

Question 10

Arrange the following words as per order in the dictionary:

I. Management

II. Manufacture

III. Maintain

IV. Manner

A I, II, III, IV

B III, II, IV, I

C IV, III, II, I

D III, I, IV, II

Answer: D

Explanation:

As per the order of dictionary,

= Maintain -> Management -> Manner -> Manufacture

≡ III, I, IV, II

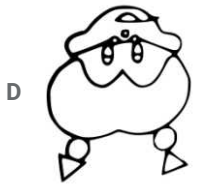
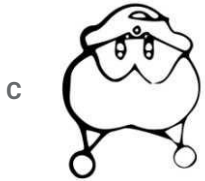
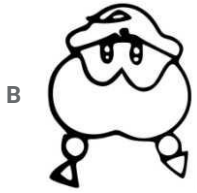
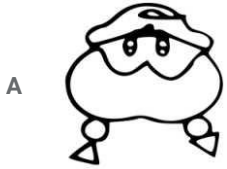
=> Ans - (D)

Question 11

Observe the figures and find a mirror image of the same from the alternatives given. Imagine that MN is a mirror.



M  N



Answer: A

Explanation:

A horizontal mirror is placed, so the object on the top will appear at the bottom in reverse position and vice-versa.

So the two triangles at the top will now appear at the bottom, thus the third option will be eliminated. Also, the mouth is at the bottom right side of face, which will move to top right side, hence second option is also eliminated.

Now among the remaining options, first image correctly resembles the mirror image in the question figure, hence first option is the right image.

=> Ans - (A)

Question 12

Select the related letters from the given alternatives.

HAPPY : ibqqz :: FRESH : ?

A gsfti

B gsdti

C gsftj

D esftg

Answer: A

Explanation:

Expression = HAPPY : ibqqz :: FRESH : ?

The pattern followed is :

H	A	P	P	Y
(+1)	(+1)	(+1)	(+1)	(+1)
i	b	q	q	z

Similarly, for FRESH : **gsfti**

F	R	E	S	H
(+1)	(+1)	(+1)	(+1)	(+1)
g	s	f	t	i

=> Ans - (A)

Question 13

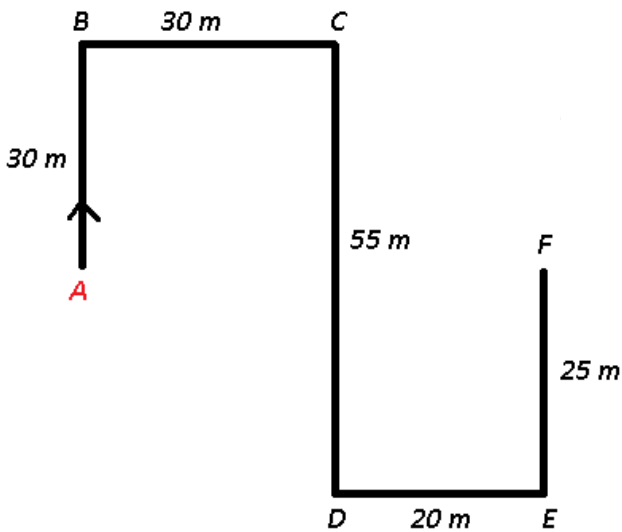
Shalu walks 30 m north, then she turns right and walks 30 m then she turns right and walks 55 m. Then she turns left and walks 20 m. Then she again turns left and walks 25m. How many meters away and in which direction is she from her original position ?

- A 20 m, South
- B 10 m, North
- C 30 m, North
- D 50 m East

Answer: D

Explanation:

Let Shalu starts from point A and walks 30 m north to reach B, then she turns right and walks 30 m towards east, then she turns right and walks 55 m in the south direction to reach D. Then she turns left and walks 20 m to point E. Then she again turns left and walks 25m northwards to stop at F.



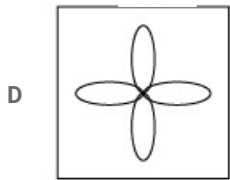
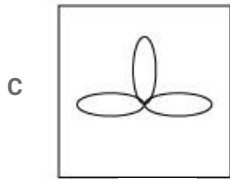
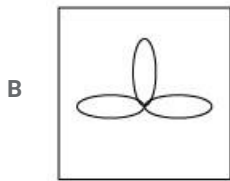
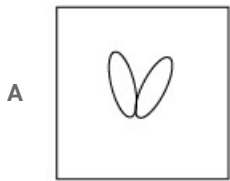
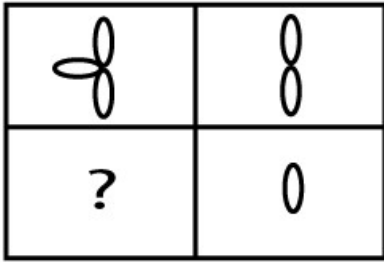
$$\Rightarrow AF = 30 - 20 = 50 \text{ m}$$

∴ She is **50 m east** of her original position.

=> Ans - (D)

Question 14

In the following question, which answer figure will complete the pattern in the question figure ?

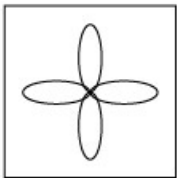


Answer: D

Explanation:

If we start from the bottom right side, and move anti-clockwise, we have one petal, then 2, after that 3, so finally in the missing piece, we must have 4 petals, which is only given in last option.

Thus, missing piece :



=> Ans - (D)

Question 15

In the following question, 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 is represented by two classes of alphabet as in two matrices given below. The columns and rows of Matrix I are numbered from 7 to 10 and that of Matrix II from 2 to 6. A letter from these matrices can be represented first by its row and then by its column, for example, 'D' can be written as 23 and 32.

Identify the set for the word RISE.

Matrix-I

	7	8	9	10
7	B	S	I	S
8	S	Q	A	A
9	V	P	V	T
10	U	E	B	R

Matrix-II

	2	3	4	5	6
2	K	D	E	I	R
3	D	Q	J	S	Q
4	N	E	D	M	L
5	O	G	O	F	S
6	P	H	E	N	R

- A 1010, 25, 35, 24
- B 26, 79, 87, 66
- C 26, 79, 99, 36
- D 66, 89, 32, 64

Answer: A

Explanation:

- (A) : 1010, 25, 35, 24 : RISE
 - (B) : 26, 79, 87, 66 : RISR
 - (C) : 26, 79, 99, 36 : RIVQ
 - (D) : 66, 89, 32, 64 : RADE
- => Ans - (A)

Question 16

If MZQBL is decoded as NYUWO, then decode OJXMT.

- A XJAGO
- B PIAGQ
- C QJBHS
- D VJBGQ

Answer: D

Explanation:

Expression : MZQBL is decoded as NYUWO

The pattern followed is that if we reverse the term, we get :

L	B	Q	Z	M
(+2)	(-3)	(+4)	(-3)	(+2)
N	Y	U	W	O

Similarly, for OJXMT : **VJBGQ**

T	M	X	J	O
(+2)	(-3)	(+4)	(-3)	(+2)
V	J	B	G	Q

=> Ans - (D)

Question 17

In the following question, some statements are given, followed by some conclusions. 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:

All roses are yellow.

Some roses are flowers.

Conclusions:

I. Some roses are yellow.

II. All roses are flowers.

A Only Conclusion I follows

B Only Conclusion II follows

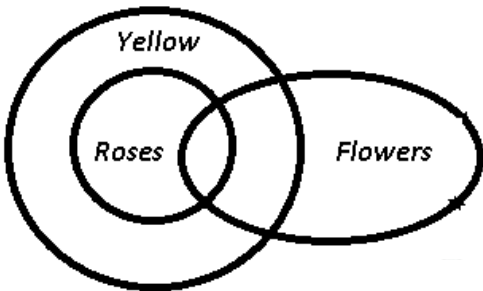
C Neither Conclusion I nor II follows

D Both Conclusions I and II follow

Answer: A

Explanation:

The venn diagram for above statements is :



Conclusions:

I. Some roses are yellow = true

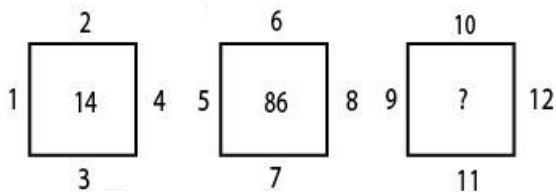
II. All roses are flowers = false

Thus, only Conclusion I follows.

=> Ans - (A)

Question 18

Select the missing number from the given responses.



A 333

B 222

C 666

D 999

Answer: B

Explanation:

The number in the middle is the sum of product of right and bottom numbers of the square and the product of left and top numbers.

Eg :- $(1 \times 2) + (3 \times 4) = 2 + 12 = 14$

and $(5 \times 6) + (7 \times 8) = 30 + 56 = 86$

Similarly, $(9 \times 10) + (11 \times 12) = 90 + 132 = 222$

=> Ans - (B)

Question 19

In the following question, some statements are given, followed by some conclusions. 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 conclusion, if any follows from the given statements.

Statement:

German engineering is considered best in the world.

Conclusions:

I. No other countries have best engineers

II. Engineers from other countries are catching up with German engineers now a days.

A Only I follows

B Only II follows

C Both I and II follow

D Neither I nor II follow

Answer: D

Explanation:

The given statement indicates that Engineering in Germany is considered best in the world. We should not conclude that other countries cannot have better engineers, also we do not know that engineers from other countries are catching up with German engineers now a days.

Thus, neither conclusion I nor II follow.

=> Ans - (D)

Question 20

Select the odd word from the given alternatives.

A Genuine

B Legitimate

C Sham

D Statutory

Answer: C

Explanation:

Genuine, legitimate and statutory are synonyms meaning authorized or valid, but **sham** meaning fraud is the odd one.

=> Ans - (C)

Question 21

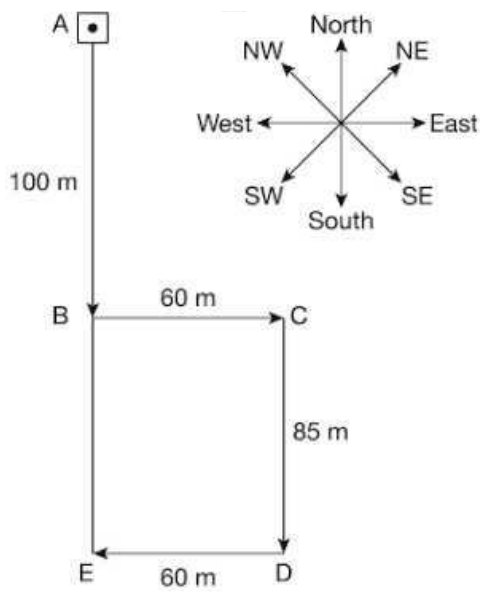
A girl walks 100 m straight from her home, to go to the market during her morning walk. Then she turns left for 60 m, the 85 m turning her right and then again turns right for 60 m, she can see her shadow now. Therefore, in which direction is the entry gate of her house facing and what is the shortest distance from her current location to the home ?

- A South, 185 metre
- B North, 185 metre
- C East, 160 metre
- D North, 160 Metre

Answer: A

Explanation:

To see her shadow, she must be facing west (the sun must be behind her). Let she starts from point A. Thus, the path of her morning walk is :



=> Required distance = $100 + 85 = 185$ m

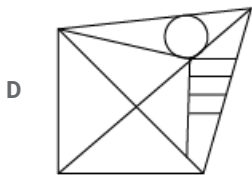
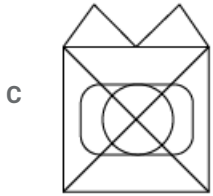
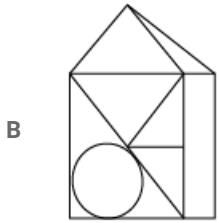
∴ Entry gate of her house is facing **south**.

=> Ans - (A)

Question 22

Find out the correct alternative figure which contains the given question figure

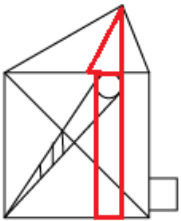




Answer: A

Explanation:

The above figure is represented by 'red' color and is hidden in :



=> Ans - (A)

Question 23

In the following question, 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 is represented by two classes of alphabets as in two matrices given below. The columns and rows of Matrix-I are numbered from 7 to 10 and that of Matrix-II from 2 to 6. A letter from these matrices can be represented first by its row and then by its column, example, 'D' can be written as 23 and 32.

Identify the set for the word DOSSIER.

Matrix-I

	7	8	9	10
7	B	S	I	S
8	S	Q	A	A
9	V	P	V	T
10	U	E	B	R

Matrix-II

	2	3	4	5	6
2	K	D	E	I	R
3	D	Q	J	S	Q
4	N	E	D	M	L
5	O	G	O	F	S
6	P	H	E	N	R

A 23, 54, 710, 25, 66, 26, 36

B 32, 35, 56, 44, 25, 78, 52

C 23, 43, 66, 26, 54, 35, 56

D 32, 54, 710, 87, 25, 24, 66

Answer: D

Explanation:

(A) : 23, 54, 710, 25, 66, 26, 36 : DOSIRRQ

(B) : 32, 35, 56, 44, 25, 78, 52 : DSSDISO

(C) : 23, 43, 66, 26, 54, 35, 56 : DERROSS

(D) : 32, 54, 710, 87, 25, 24, 66 : **DOSSIER**

=> Ans - (D)

Question 24

In the following question, a series is given with one or more alphabet missing. Choose the correct alternative from the given options.
X_ZY_X_YZY_X

A XZYZ

B ZYXY

C YZXZ

D YYZZ

Answer: C

Explanation:

Expression : X_ZY_X_YZY_X

The above series is a combination of terms containing 3 letters of the form 'XYZ' and 'YZX' alternatively.

= XYZ / YZX / XYZ / YZX

=> Ans - (C)

Question 25

From the given alternative words, select the word which cannot be formed using the letters of the given word.
RAPPROCHEMENT

A MACHETE

B APPROACH

C RAPID

D TEAM

Answer: C

Explanation:

The word RAPPROCHEMENT does not contain any 'I' or 'D', thus the term **Rapid** cannot be formed.

=> Ans - (C)

Question 26

Select the related number from the given alternatives.

16 : 256 :: ? : 169

A 23

B 33

C 13

D 27

Answer: C

Explanation:

Expression = $16 : 256 :: ? : 169$

The pattern followed is $n : n^2$

Eg :- $(16)^2 = 256$

Similarly, $(13)^2 = 169$

=> Ans - (C)

Question 27

Select the odd letters from the given alternatives.

A QRTY

B BCEK

C FGIO

D TUWC

Answer: A

Explanation:

(A) : Q (+1) = R (+2) = T (+5) = Y

(B) : B (+1) = C (+2) = E (+6) = K

(C) : F (+1) = G (+2) = I (+6) = O

(D) : T (+1) = U (+2) = W (+6) = C

=> Ans - (A)

Question 28

Select the related word from the given alternatives.

Powerful : Weak :: Victory : ?

A Winning

B Strong

C Defeat

D Peace

Answer: C

Explanation:

The given pairs are antonyms, opposite of powerful is weak, similarly opposite of victory is **defeat**.

=> Ans - (C)

Question 29

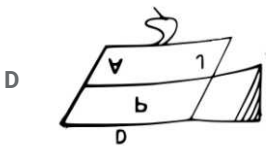
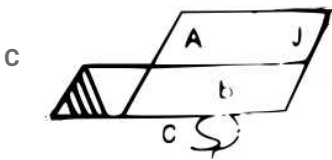
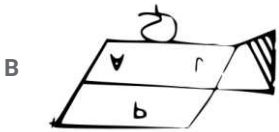
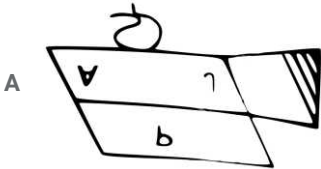
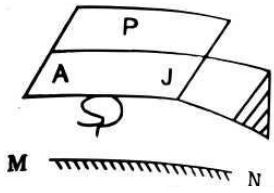
In the following questions, a series is given with one or more alphabet missing. Choose the correct alternative from the given options.

- A qqrppqp
- B ppprppq
- C qqppppq
- D qqppppq

Answer: A

Question 30

Observe the figures and find a mirror image of the same from the alternatives given. Imagine that MN is a mirror.



Answer: A

Explanation:

A horizontal mirror is placed, so the object on the top will appear at the bottom in reverse position and vice-versa.

So the three vertical line at bottom right will now appear at top right side of image, thus the last two options will be eliminated.

Also, in the question figure, all the alphabets will turn upside down, hence first option is the right image.

=> Ans - (A)

Question 31

If P is sitting second to the left of S and Q is sitting third to the right of R. T sits immediate right of S, Q is not on immediate right or left of S. Who is sitting on the immediate right of R ?

A T

B S

C P

D Q

Answer: B

Explanation:

P is sitting second to the left of S and Q is sitting third to the right of R.

T sits immediate right of S, => P _ S T

Also, Q is not on immediate right or left of S.

Thus, final arrangement is :

P	R	S	T	Q
---	---	---	---	---

∴ S is sitting on the immediate right of R.

=> Ans - (B)

Question 32

Select the odd word from the given alternatives.

A Baleful

B Pestilent

C Deathly

D Wholesome

Answer: D

Explanation:

Baleful, pestilent and deathly are synonyms meaning destructive to life or deadly, hence **wholesome** is the odd one.

=> Ans - (D)

Question 33

Select the odd number from the given alternatives.

A 18

B 40

C 82

D 180

Answer: C

Explanation:

The pattern followed is = $n^2 + (n - 2)$

(A): $(4)^2 + 2 = 18$

(B): $(6)^2 + 4 = 40$

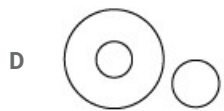
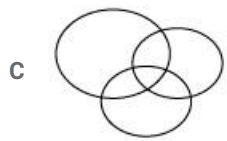
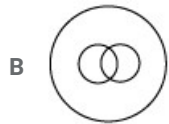
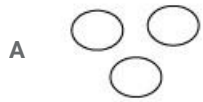
(C): $(9)^2 + 7 = 88 \neq 82$

(D): $(13)^2 + 11 = 180$

=> Ans - (C)

Question 34

Identify the diagram that best represents the relationship among the classes given.
Whales, Fishes, Crocodiles



Answer: A

Explanation:

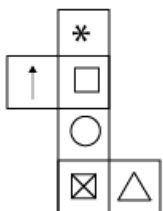
Whales, fishes and crocodiles are all aquatic animals, but are completely different from each other, hence the venn diagram that best describes above relationship is :



=> Ans - (A)

Question 35

Which of the following cubes can be created by folding the given figure ?



A fig1

B fig2

C fig3

D fig4

Answer: B

Question 36

Babita is Ajay's wife and Chiranjiv is Divya's father. If Ajay's mother-in-law is wife of Divya's grandfather, then what is the relation of Babita with Chiranjiv's wife ?

- A Sister-in-law
- B Sister
- C Cousin
- D Nephew

Answer: A

Explanation:

Babita is wife of Ajay and Chiranjiv is father of Divya.
Wife of Divya's grandfather means grandmother of Divya.
Grandmother of Divya is mother-in-law of Ajay.
Thus, Babita is daughter of Divya's grandmother.
Hence, Chiranjiv is brother of Babita.
∴ Babita is **sister-in-law** of Chiranjiv's wife.

=> Ans - (A)

Question 37

If GOPAL is coded as MIVUR, then how will RADHA be coded as:

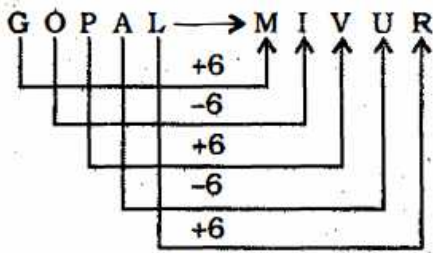
- A XVJBG
- B XUJBG
- C XTJBG
- D XUJCG

Answer: B

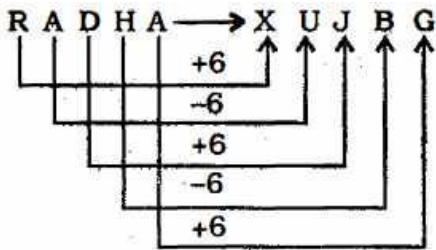
Explanation:

GOPAL is coded as MIVUR

The pattern followed is :



Similarly, for RADHA : XUJBG



=> Ans - (B)

Question 38

Select the missing number from the given responses.

121 81 49

100 64 36

15 16 25

? 31 41

A 11

B 29

C 24

D 15

Answer: B

Explanation:

1st row : $121 + 49 = 170$

and $(81 \times 2) + 8 = 170$

2nd row : $100 + 36 = 136$

and $(64 \times 2) + 8 = 136$

3rd row : $15 + 25 = 40$

and $(16 \times 2) + 8 = 40$

4th row : $(31 \times 2) + 8 = 70$

=> $x + 41 = 70$

=> $x = 70 - 41 = 29$

=> Ans - (B)

Question 39

Select the odd number from the given alternatives.

A 18981

B 64354

C 93892

D 56138

Answer: A

Explanation:

Except the number 18981, all other numbers are even numbers, hence **18981** is the odd one.

=> Ans - (A)

Question 40

In the following question, a series is given with one or more number (s) missing. Choose the correct alternative from the given options.

?, 5, 30, 186, 1309, 10480

A 0.25

B 0.75

C 1.00

D 0

Answer: A

Explanation:

The pattern followed is :

$$0.25 \times 4 + 4 = 5$$

$$5 \times 5 + 5 = 30$$

$$30 \times 6 + 6 = 186$$

$$186 \times 7 + 7 = 1309$$

$$1309 \times 8 + 8 = 10480$$

=> Ans - (A)

Question 41

Select the related letters from the given alternatives.

GAYATRI : AAR :: PALLAVI : ?

A ALI

B AAL

C ALA

D ALV

Answer: D

Explanation:

Expression = GAYATRI : AAR :: PALLAVI : ?

Only, the even terms are concatenated in the second term from the first term.

1 2 3 4 5 6 7 2 4 6
G A Y A T R I ⇒ A A R

Similarly, for PALLAVI : ALV

1 2 3 4 5 6 7 2 4 6
P A L L A V I ⇒ A L V

=> Ans - (D)

Question 42

In a class, Ena ranked eighteen from the top and thirty-ninth from the bottom among these who passed an examination. Ten students did not appear in the examination and four failed. What is the total number of students in the class ?

- A 40
- B 60
- C 56
- D 70

Answer: D

Explanation:

Number of students who passed the exam = $(18 + 39) - 1 = 56$

Total number of students = $56 + 10 + 4 = 70$

=> Ans - (D)

Question 43

In the following question, a series is given with one or more alphabet missing. Choose the correct alternative from the given options. BE, DH, ??, HN, JQ

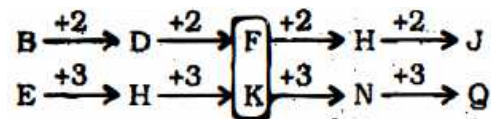
- A FI
- B FK
- C GI
- D GK

Answer: B

Explanation:

Series : BE, DH, ??, HN, JQ

The pattern followed in each letter of the terms is that there is a difference of 2 alphabets in 1st letter and 3 alphabets in second letter of the series.

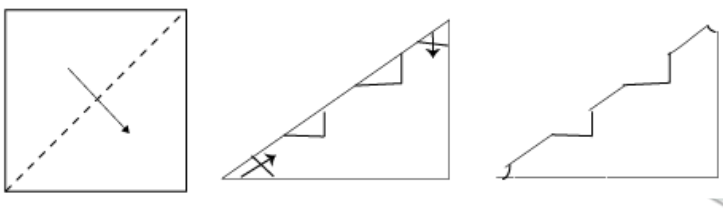


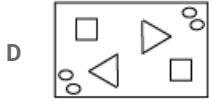
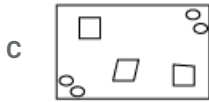
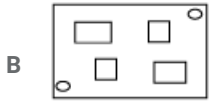
Thus, missing term = FK

=> Ans - (B)

Question 44

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





Answer: B

Question 45

Select the odd letters from the given alternatives.

A OMNLM

B TOQOP

C WUVTU

D RPQOP

Answer: B

Explanation:

(A) : $O (-2) = M (+1) = N (-2) = L (+1) = M$

(B) : $T (-5) = O (+2) = Q (-2) = O (+1) = P$

(C) : $W (-2) = U (+1) = V (-2) = T (+1) = U$

(D) : $R (-2) = P (+1) = Q (-2) = O (+1) = P$

=> Ans - (B)

Question 46

In the following question, a series is given with one or more alphabet missing. Choose the correct alternative from the given options.
E-D-C-B, J-H-F-D, O-L-I ?

A R

B A

C E

D F

Answer: D

Explanation:

The pattern followed in each letter of the series is :

E $\xrightarrow{+5}$ **J** $\xrightarrow{+5}$ **O**

D $\xrightarrow{+4}$ **H** $\xrightarrow{+4}$ **L**

C $\xrightarrow{+3}$ **F** $\xrightarrow{+3}$ **I**

B $\xrightarrow{+2}$ **D** $\xrightarrow{+2}$ **F**

Thus, missing term = F

=> Ans - (D)

Question 47

Select the missing number from the given responses.

2 3 4

8 6 9

6 3 5

10 ? 29

A 12

B 14

C 16

D 9

Answer: D

Explanation:

The pattern followed in each column is that :

1st column : $(2 \times 8) + 6 = 22$; $22 - 10 = 12$

3rd column : $(4 \times 9) + 5 = 41$; $41 - 29 = 12$

Similarly, $(3 \times 6) + 3 = 21$; $21 - x = 12$

=> $x = 21 - 12 = 9$

=> Ans - (D)

Question 48

In the following question, a series is given with one or more number (s) missing. Choose the correct alternative from the given options.

22, 22, 23, 20, 16, 17, 17, ?, ?, 8

A 18, 9

B 12, 13

C 10, 9

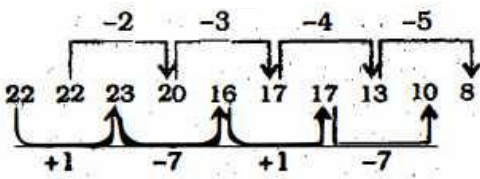
D 13, 10

Answer: D

Explanation:

Series : 22, 22, 23, 20, 16, 17, 17, ?, ?, 8

The pattern followed in the alternate terms, i.e. (22,23,16,17,?) , (22,20,17,?,8) is :



Thus, missing term : 13, 10

=> Ans - (D)

Question 49

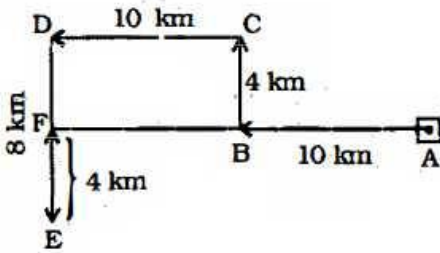
A man goes 10 km westward, then turns right and proceeds 4 km, then travels 10 km towards left, then travels 8 km towards left and finally goes 4 km northward. Calculate his distance from his initial place in the horizontal direction.

- A 20 km
- B 22 km
- C 23 km
- D 25 km

Answer: A

Explanation:

Let the man starts from point A and goes 10 km westward to point B, then turns right and proceeds 4 km northwards towards C, then travels 10 km towards left, then travels 8 km towards left to reach E and finally goes 4 km northward to stop at point F.



∴ His distance from his initial place in the horizontal direction = AF = AB + BF

$$= 10 + 10 = 20 \text{ km}$$

=> Ans - (A)

Question 50

Select the related number from the given alternatives.

19: 568 :: 25 : ?

- A 748
- B 623
- C 799
- D 654

Answer: A

Explanation:

Expression = 19: 568 :: 25 : ?

The pattern followed is = $(19 \times 30) - 2 = 568$

Similarly, $(25 \times 30) - 2 = 750 - 2 = 748$

=> Ans - (A)

Instructions

For the following questions answer them individually

Question 51

Who is the 'father' of White Revolution ?

- A J.P. Narayan
- B Verghese Kurien
- C Baba Amte
- D M.S. Swaminathan

Answer: B

Question 52

Who applied the concept of guerilla warfare in India in 17th Century ?

- A Shivaji
- B Sher Shaih Suri
- C Genghis Khan
- D Maharana Pratap

Answer: A

Question 53

Which Indian language is also spoken in Nepal, Pakistan, Bangladesh, Trinidad and Tobago, Guyana, Suriname, Jamaica, the Caribbean, Fiji, South Africa ?

- A Bhojpuri
- B Punjabi
- C Tamil
- D Telugu

Answer: A

Question 54

In which of the following layer of atmosphere the absorption and scattering of the solar ultraviolet radiation takes place ?

- A Troposphere
- B Stratosphere
- C Mesosphere
- D Thermosphere

Answer: B

Question 55

The cooling by a desert Cooler is based on:

- A Hot air replacement
- B Air dehydration
- C Evaporative Cooling
- D Air Rehydration

Answer: C

Question 56

World No tobacco day observed on:

- A 31st May
- B 21st May
- C 1st May
- D 5th June

Answer: A

Question 57

The name of the longest muscle in human body is

- A Sartorius muscle
- B Massete muscle
- C Stapedius muscle
- D Gluteus Maximus muscle

Answer: A

Question 58

Article 60 of the Indian Constitution refers to:

- A Election of the President of India
- B Oath of the President
- C Impeachment of the President
- D Vice President of India

Answer: B

Question 59

When was the Mumbai Stock Exchange set up ?

- A 1947
- B 1900
- C 1857
- D 1875

Answer: D

Question 60

_____ was the first Muslim ruler of Delhi.

- A Akbar
- B Shahjahan
- C Qutub-ud-din-Aibak
- D Ala-ud-din Khiji

Answer: C

Question 61

Which of the following is used to make light weight, but strong plastic ?

- A Nylon
- B Polythene
- C Polyvinyl Chloride
- D Methyl Methacrylate

Answer: C

Question 62

How many schedules are there in the Indian Constitution ?

- A 8
- B 10
- C 11
- D 12

Answer: D

Question 63

which of the following range of Air Pollutant Index is considered as hazardous ?

- A 301-500
- B 201-300

C 101-200

D 401-500

Answer: A

Question 64

In which year did the movie "The Lord of the Rings; The Return of the Kind" won the Oscar Awards of the best movie with a clean sweep ?

A 2004

B 2003

C 2002

D 2005

Answer: A

Question 65

Which of the following Indian states' police department launched " Operation Milan' to recover abducted youths ?

A Haryana

B Gujarat

C Uttrakhand

D Uttar Pradesh

Answer: D

Question 66

_____ is the thinnest layer of Earth.

A Mantle

B Outer Core

C Crust

D Inner Core

Answer: C

Question 67

DNA shows hyperchromicity on:

A heating

B cooling

C crystallizing

D replication

Answer: A

Question 68

Who prepares National Income in India ?

A Planning commission

B Central Statistical Organization

C Reserve Bank of India

D National Income Committee

Answer: B

Question 69

Which of the following is example of simple harmonic motion ?

A Earth spinning on its axis

B Simple pendulum

C Ball bouncing on floor

D Motion of a ceiling fan

Answer: B

Question 70

Which part of human body is affected by the ALZHEIMER's disease ?

A Heart

B Kidney

C Immune System

D Brain

Answer: D

Question 71

Which amendment to the indian Constitution added the words Secular and Socialist in the Preamble ?

A Fortieth

B Forty-first

C Forty-second

D Forty-third

Answer: C

Question 72

What do you call the study of fungi ?

- A Mycology
- B Parasitology
- C Bacteriology
- D Ecology

Answer: A

Question 73

Which of the following are methods of heat transfer ?

- A Convection
- B Evaporation
- C Revolution
- D Thermal Expansion

Answer: A

Question 74

Which of the following rock formations resulted in Eastern Ghats ?

- A Charnockites, bauxite, granite gneiss and quartzite rock
- B Khondalites, bauxite, granite gneiss, metamorphic gneiss and quartzite rock
- C Charnockites, khondalites, metamorphic gneisses and quartzite rock
- D Charnockites, granite gneiss, quartzite rock khondalites, metamorphic gneisses

Answer: D

Question 75

Which of the following is the correct sequence of countries in terms of maximum carbon dioxide emission ?

- A China, USA, European Union, India
- B USA, India, China, European Union
- C China, India, European Union, India
- D European Union, China, USA India

Answer: A

Question 76

Which among the following books was an autobiography written by Jawaharlal Nehru in prison ?

- A Glimpses of World History
- B Discovery of India
- C Nehru Benakaab
- D Toward Freedom

Answer: D

Question 77

In which year was the Morley Minto reform passed ?

- A 1917
- B 1902
- C 1909
- D 1912

Answer: C

Question 78

Who was the director of the Alice in the Wonderland ?

- A Lewis Carroll
- B Tim Burton
- C Linda Woolverton
- D Alan Rickman

Answer: B

Question 79

The Grand Trunk Road built by Sher Shah Suri Connects;

- A Agra-Punjab
- B Punjab-East Bengal
- C Lahore-East Bengal
- D Multan-Agra

Answer: C

Question 80

Who was the founder of Kolkata's first "Atmiya Sabha" (philosophical discussion circle) held in 1815 ?

- A Ram Mohan Roy
- B Lala Lajpat Rai
- C Rabindranath Tagore
- D Jawaharlal Nehru

Answer: A

Question 81

How do you calculate the poverty line ?

- A Income of an individual under a threshold value published by Government of India
- B Income of any individual less than 50 INR in a day
- C Average income of all the individual in a country
- D Income of a family less than 100 INR in a day

Answer: A

Question 82

In which year the constituent assembly of India started functioning ?

- A 1945
- B 1946
- C 1947
- D 1948

Answer: B

Question 83

Which of the following are used to calculate economic freedom of a country ?

- A Rule of Law, Regulatory Efficiency, Market Openness, Government Size
- B Gross domestic product, Regulatory Efficiency, Market Openness, Foreign Direct Investment
- C Rule of Law, Inflation, Gross domestic product growth rate, Government Size
- D Rule of Law, Regulatory Efficiency, Inflation, Foreign Direct Government

Answer: D

Question 84

Which of the following substances smell is similar to Ethanoic acid ?

- A Tomato juice
- B Kerosene

C Vinegar

D Lemon

Answer: C

Question 85

Which of the following was the first theory of super conductivity ?

A Ginzburg Landau theory

B London theory

C Resonating valence bond theory

D Quantum field theory

Answer: B

Question 86

Which among the following is the name given to the cursor for the computer language 'LOGO' ?

A Robot

B Frog

C Spider

D Turtle

Answer: D

Question 87

Which of the following acids serves as an electrolyte in a lead storage battery ?

A Sulphuric acid

B Lactic acid

C Hydrochloric acid

D Nitric acid

Answer: A

Question 88

Which of the following is the study of soil ?

A Myrmecology

B Pedology

C Glaciology

D Cosmology

Answer: B,

Question 89

What is Myrmecology ?

A Study of files

B Study of ants

C Study of bees

D Study of spiders

Answer: B

Question 90

Which of the following is not a natural source of hydrocarbon ?

A Natural Gas

B Coal

C Petroleum

D Mica

Answer: D

Question 91

What happens when there is a demand deficiency in an economy ?

A Poverty

B Stagnation

C Recession

D Inflation

Answer: B

Question 92

Which of the following is the unit of Astronomical Distance ?

A metre/sec.

B Sec.

C Para/sec.

D Parsec

Answer: D

Question 93

Which is the only car in India named after Mr. Sumant Moolgaokar ?

- A Tata Sumo
- B Hyundai Santa Fe
- C Tata Safari
- D Hyundai Santro

Answer: A

Question 94

In North-East India ___ is known to be the largest freshwater lake.

- A Dal Lake
- B Chilika Lake
- C Loktak Lake
- D Tsomoriri Lake

Answer: C

Question 95

Which of the following is true for photoperiodic ?

- A It occurs only in plants
- B It is related to flowering in plants
- C It is related to feathers of animals
- D It is the reaction of organism to the length of day or night

Answer: D

Question 96

Article 324-329 of the Indian Constitution deals with which of the following ?

- A Tribunals
- B Elections
- C Cast System
- D Panchayati system

Answer: B

Question 97

The study of earthquake is called

- A Topology
- B Hydrology
- C Limnology
- D Seismology

Answer: D

Question 98

Which among the following foreign countries was the first one to trade with India ?

- A England
- B Netherlands
- C France
- D Portugal

Answer: D,

Question 99

Which of the following attribute in the Preamble states that \No one should treat a fellow citizen as inferior ?

- A Justice
- B Liberty
- C Equality
- D Fraternity

Answer: D

Question 100

Which of the following are valid phases of a computer virus ?

- A Only Triggering. Executting
- B Only Propagation, Executing
- C Only Dormant, Propagation, Triggering, Executing
- D Only Dormant, Propagation.

Answer: C

Instructions

For the following questions answer them individually

Question 101

Sandeep sells an article at a loss of 10%. Had he bought it at 20% less and sold it for Rs. 55 more, he could have gained 40%. What is the cost price of the article ?

- A Rs. 200
- B Rs. 225
- C Rs. 250
- D Rs. 275

Answer: C

Explanation:

Let cost price of article = Rs. $100x$

$$\Rightarrow \text{Selling price} = 100x \times \frac{90}{100} = \text{Rs. } 90x$$

$$\text{According to ques, new cost price} = 100x \times \frac{80}{100} = \text{Rs. } 80x$$

$$\text{And new selling price} = \text{Rs. } (90x + 55)$$

$$\Rightarrow \text{Profit \%} = \frac{(90x+55)-80x}{80x} \times 100 = 40$$

$$\Rightarrow 10x + 55 = 32x$$

$$\Rightarrow 32x - 10x = 22x = 55$$

$$\Rightarrow x = \frac{55}{22} = 2.5$$

$$\therefore \text{Cost price of the article} = 100 \times 2.5 = \text{Rs. } 250$$

\Rightarrow Ans - (C)

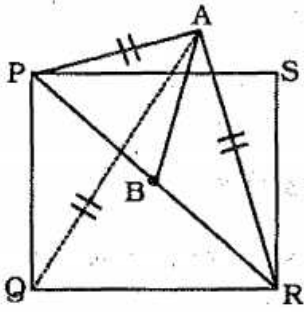
Question 102

A vertical pole AB is standing at the centre B of a square PQRS. If PR subtends an angle of 90° at the top A of the pole, then the angle subtended by a side of the square at A is:

- A 30°
- B 45°
- C 60°
- D None of these

Answer: C

Explanation:



The pole is standing at the centre of the square, $\Rightarrow PA = PR$

$$\Rightarrow \angle APB = \angle ARB = 45^\circ$$

Let the side of the square = x units

$$\Rightarrow PR \text{ (diagonal)} = \sqrt{2}x \text{ units}$$

$$\text{Hence, } PB = \frac{x}{\sqrt{2}} \text{ units}$$

Now, in $\triangle APB$,

$$\Rightarrow \tan(\angle APB) = \frac{AB}{PB}$$

$$\Rightarrow \tan(45^\circ) = 1 = \frac{AB}{PB}$$

$$\Rightarrow AB = PB = \frac{x}{\sqrt{2}}$$

$$\text{Thus, } PA = \sqrt{\left(\frac{x}{\sqrt{2}}\right)^2 + \left(\frac{x}{\sqrt{2}}\right)^2}$$

$$\Rightarrow PA = \sqrt{\frac{x^2}{2} + \frac{x^2}{2}} = \sqrt{x^2} = x$$

Similarly, $QA = x$ units

Hence, $PA = PQ = QA = x$

$$\therefore \angle PAQ = 60^\circ$$

\Rightarrow Ans - (C)

Question 103

Durga walks 5 km from her home to school in 60 minutes, then bicycles back to home along the same route at 15 km per hour. Her sister Smriti makes the same round trip, but does so at half of Durga's average speed. How much time does Smriti spend on her round trip ?

- A 120 minutes
- B 40 minutes
- C 160 minutes
- D 80 minutes

Answer: C

Explanation:

Durga's walking speed = 5 km/hr and bicycle speed = 15 km/hr

$$\Rightarrow \text{Average speed} = \frac{2xy}{x+y} \text{ km/hr}$$

$$= \frac{2 \times 5 \times 15}{5+15} = 7.5 \text{ km/hr}$$

$$\Rightarrow \text{Smriti's speed} = \frac{7.5}{2} = 3.75 \text{ km/hr}$$

Distance between home and school = 5 km

∴ Time taken by Smriti on the round trip = $2 \times 3\frac{5}{8} = 3\frac{5}{4}$ hours

= $(3\frac{5}{4} \times 60) = 160$ minutes

⇒ Ans - (C)

Question 104

A factory's yearly budget for the purchase of employees protection shoes increased by 60% this year over last year. If the price of the shoes increased by 20% this year, then the number of shoes it can purchase this year is what percent greater than the number of shoes it purchased last year ?

A 40%

B $33\frac{1}{3}\%$

C 42%

D 48%

Answer: B

Explanation:

Let 100 pairs of shoes be bought for Rs. 100

⇒ New budget = $100 \times \frac{160}{100} = \text{Rs. } 160$

New price of 1 pair of shoes = $1 \times \frac{120}{100} = \text{Rs. } 1.2$

⇒ Number of shoes bought = $\frac{160}{1.2} = 133.33$

∴ % increase = $\frac{(133.33 - 100)}{100} \times 100 = 33.33 = 33\frac{1}{3}\%$

⇒ Ans - (B)

Question 105

Instead of dividing 391 cookies among 3 children A, B, C in the ratio $\frac{1}{5} : \frac{1}{4} : \frac{1}{8}$, it was divided in to the ratio 5 : 4 : 8. Who gains the most and how many ?

A A, 21 cookies

B B, 78 cookies

C C, 99 cookies

D C, 78 cookies

Answer: C

Explanation:

Case I = A : B : C = $\frac{1}{5} : \frac{1}{4} : \frac{1}{8}$

L.C.M. (5,4,8) = 40

= $\frac{40}{5} : \frac{40}{4} : \frac{40}{8} = 8 : 10 : 5$

Sum of terms of ratio = $8 + 10 + 5 = 23$

Case II = A : B : C = 5 : 4 : 8

Sum of term of ratio = $5 + 4 + 8 = 17$

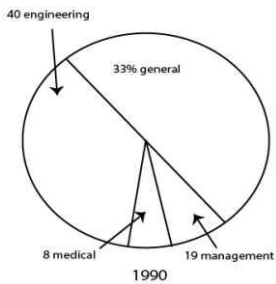
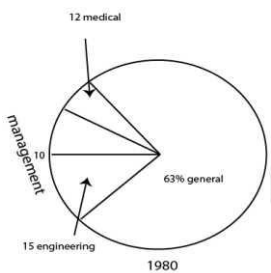
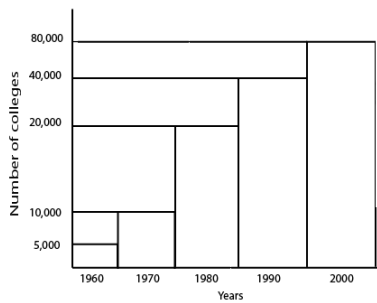
Clearly, only C gains by = $(\frac{8}{17} - \frac{5}{23}) \times 391$

$$= \frac{184-85}{391} \times 391 = 99$$

=> Ans - (C)

Instructions

The numbers of different colleges in india in different years is given in the graph below. Percent distribution of different colleges in year 1980 and 1990 is shown in pie chart



Question 106

What is the difference in number of engineering colleges in 80's and 90's

- A 13000
- B 10000
- C 15000
- D None of these

Answer: A

Explanation:

Number of engineering colleges in 80's = $\frac{15}{100} \times 20,000 = 3,000$

Number of engineering colleges in 90's = $\frac{40}{100} \times 40,000 = 16,000$

=> Required difference = $16000 - 3000 = 13000$

=> Ans - (A)

Question 107

The difference in number of management colleges in 1980 to 1990 is:

- A 3600
- B 3000
- C 5600
- D 1500

Answer: C

Explanation:

Number of management colleges in 80's = $\frac{10}{100} \times 20,000 = 2000$

Number of management colleges in 90's = $\frac{19}{100} \times 40,000 = 7600$

=> Required difference = $7600 - 2000 = 5600$

=> Ans - (C)

Question 108

What is the increment in the number of colleges from 1960 to 1980 ?

- A 300%
- B 700%
- C 750%
- D 800%

Answer: A

Explanation:

Number of colleges in 1960 = 5,000

Number of colleges in 1980 = 20,000

=> Required % increase = $\frac{(20,000 - 5,000)}{5,000} \times 100$

= 300%

=> Ans - (A)

Question 109

By what percent is the number of medical colleges in 1980 less than that in 1990 ?

- A 25%
- B 30%
- C 32%
- D 20%

Answer: A

Explanation:

Number of medical colleges in 80's = $\frac{12}{100} \times 20,000 = 2400$

Number of medical colleges in 90's = $\frac{8}{100} \times 40,000 = 3200$

$$\Rightarrow \text{Required \% decrease} = \frac{(3200-2400)}{3200} \times 100$$

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

\Rightarrow Ans - (A)

Question 110

What is the average number of colleges for the given years ?

A 30000

B 31000

C 29000

D 32000

Answer: B

Explanation:

Average number of colleges for the given years

$$= \frac{(5+10+20+40+80) \times 1000}{5}$$

$$= \frac{155000}{5} = 31000$$

\Rightarrow Ans - (B)

Instructions

For the following questions answer them individually

Question 111

Walking at $\frac{3}{4}$ of his usual speed, a man reaches his office 20 minutes late. Then his usual time for walking to his office is:

A 1 hour

B 30 minutes

C 45 minutes

D 40 minutes

Answer: A

Explanation:

Let usual speed = 4 m/min and usual time taken = t min

New speed = $\frac{3}{4} \times 4 = 3$ m/min and new time taken = $(t + 20)$ minutes

Also, speed is inversely proportional to time.

$$\Rightarrow \frac{4}{3} = \frac{t+20}{t}$$

$$\Rightarrow 4t = 3t + 60$$

$$\Rightarrow 4t - 3t = t = 60$$

\therefore Usual time taken to reach office = 60 minutes = **1 hour**

\Rightarrow Ans - (A)

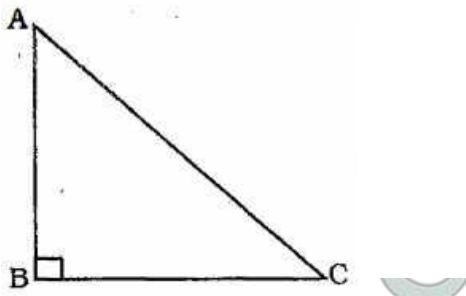
Question 112

The perimeter of a certain isosceles right triangle is $10 + 10\sqrt{2}$ cm. What is the length of the hypotenuse of the triangle ?

- A 5 cm
- B 10 cm
- C $5\sqrt{2}$ cm
- D $10\sqrt{2}$ cm

Answer: B

Explanation:



ABC is an isosceles right angled triangle, where $\angle B = 90^\circ$

Let $AB = BC = x$

$$\Rightarrow (AC)^2 = x^2 + x^2 = 2x^2$$

$$\Rightarrow AC = \sqrt{2x^2} = \sqrt{2}x$$

$$\text{Perimeter} = x + x + \sqrt{2}x = 10 + 10\sqrt{2}$$

$$\Rightarrow 2x + \sqrt{2}x = 10 + 10\sqrt{2}$$

$$\Rightarrow \sqrt{2}x(\sqrt{2} + 1) = 10(\sqrt{2} + 1)$$

$$\Rightarrow \sqrt{2}x = 10$$

\therefore Length of hypotenuse = 10 cm

\Rightarrow Ans - (B)

Question 113

A Set A consists of integers 27, 28, 30, 32 and 33. If integer k is included in the average of set A will increase by 30%. What is the value of integer K ?

- A 68
- B 79
- C 84
- D 92

Answer: C

Explanation:

$$\text{Average of set A} = \frac{(27+28+30+32+33)}{5} = \frac{150}{5} = 30$$

$$\text{New average (by adding k)} = 30 \times \frac{130}{100} = 39$$

$$\Rightarrow \frac{150+k}{6} = 39$$

$$\Rightarrow 150 + k = 39 \times 6 = 234$$

$$\Rightarrow k = 234 - 150 = 84$$

=> Ans - (C)

Question 114

The altitude of an equilateral triangle of side $\sqrt{3}$ cm is:

A $\frac{4}{3}$ cm

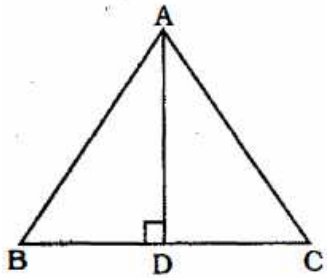
B $\frac{4}{\sqrt{3}}$ cm

C $\frac{4}{3}$ cm

D 1 cm

Answer: D

Explanation:



Side of equilateral triangle = $AB = BC = CA = \sqrt{3}$ cm

Also, $BD = \frac{BC}{2} = \frac{1}{2} \sqrt{3}$ cm

$$\therefore AD = \sqrt{AB^2 - BD^2}$$

$$= \sqrt{\frac{4}{3} - \frac{1}{3}}$$

$$= \sqrt{\frac{3}{3}} = \sqrt{1} = 1 \text{ cm}$$

=> Ans - (D)

Question 115

ABC is an equilateral triangle. Points D, E, F are taken in sides AB, BC, CA respectively, so that $AD = CF$. Then AE, BF, CD enclosed a triangle which is:

A Equilateral triangle

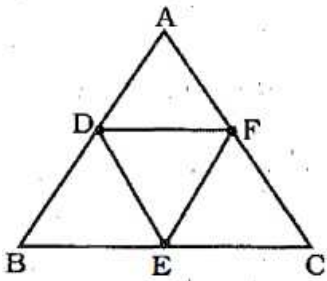
B isosceles triangle

C right angle triangle

D None of these

Answer: A

Explanation:



It is given that $AB = BC = AC$

$$\Rightarrow (AD + BD) = (AF + CF)$$

$$\therefore AD = CF, \Rightarrow BD = AF$$

Hence, $AD = BD = BE = EC = CF = AF$

\therefore D, E and F are mid points of sides AB, BC and AC respectively.

Thus, $DF \parallel BC$ and $DF = \frac{1}{2} BC$

Hence, $DE = EF = DF$

$\Rightarrow \triangle DEF$ is **equilateral** triangle.

\Rightarrow Ans - (A)

Question 116

Chord PQ is the perpendicular bisector of radius OA of circle with center O (A is a point on the edge of the circle). If the length of Arc PAQ = $\frac{2\pi}{3}$. What is the length of chord PQ ?

A 2

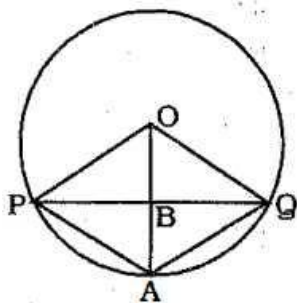
B $\sqrt{3}$

C $2\sqrt{3}$

D 1

Answer: B

Explanation:



PQ is perpendicular bisector of OA. Also, $OP = OQ$ (radii)

Hence, OPAQ is a rhombus. -----(i)

Also, $2\angle PAQ = \text{reflex } \angle POQ$ [The angle subtended at the centre by an arc is twice to that at the circumference]

$$\Rightarrow 2\angle PAQ = 360^\circ - \angle POQ$$

$$\Rightarrow 2\angle PAQ + \angle POQ = 360^\circ$$

From (i), we have $\angle PAQ = \angle POQ$

$$\Rightarrow 3\angle POQ = 360^\circ$$

$$\Rightarrow \angle POQ = 120^\circ = \frac{2\pi}{3}$$

We know that, $r = \frac{l}{\theta}$

$$\Rightarrow r = \frac{\frac{2\pi}{3}}{\frac{2\pi}{3}} = 1 \text{ unit}$$

In $\triangle POB$,

$$\Rightarrow \sin(\angle POB) = \frac{PB}{OP}$$

$$\Rightarrow \sin(60^\circ) = \frac{PB}{1}$$

$$\Rightarrow PB = \frac{\sqrt{3}}{2}$$

$$\therefore \text{Chord PQ} = 2 \times (PB) = 2 \times \frac{\sqrt{3}}{2} = \sqrt{3}$$

\Rightarrow Ans - (B)

Question 117

For how many integral values of 'x' $\sin \phi = \frac{3x-2}{4}$, where $0^\circ \leq \phi \leq 90^\circ$

A 2

B 3

C 0

D 1

Answer: A

Explanation:

$$0^\circ \leq \phi \leq 90^\circ$$

$$\Rightarrow 0 \leq \sin \phi \leq 1$$

$$\Rightarrow 0 \leq \left(\frac{3x-2}{4}\right) \leq 1$$

$$\Rightarrow 0 \leq (3x-2) \leq 4$$

$$\Rightarrow 2 \leq 3x \leq 6$$

$$\Rightarrow \frac{2}{3} \leq x \leq 2$$

Thus, integral values of $x = 2$ (1 and 2)

\Rightarrow Ans - (A)

Question 118

What is x, if $x^3 = 1.5^3 - 0.9^3 - 2.43$

A -0.5

B 0.6

C -0.7

D -1.6

Answer: B

Explanation:

$$\text{Given : } x^3 = 1.5^3 - 0.9^3 - 2.43$$

$$\begin{aligned}
 &= (1.5)^3 - (0.9)^3 - 3 \times 1.5 \times 0.9 \times 0.6 \\
 &= (1.5)^3 - (0.9)^3 - 3(1.5)(0.9)(1.5 - 0.9) \\
 &= (1.5 - 0.9)^3 = (0.6)^3 \\
 &\Rightarrow x = 0.6
 \end{aligned}$$

\Rightarrow Ans - (B)

Question 119

If $\frac{1}{x^2} + x^2$ represents the radius of circle P and $\frac{1}{x} + x = 17$, which of the following best approximates the circumference of circle P?

A 287π

B 547π

C 574π

D 278π

Answer: C

Explanation:

Given: $\frac{1}{x} + x = 17$

Squaring both sides,

$$\Rightarrow \left(\frac{1}{x} + x\right)^2 = (17)^2$$

$$\Rightarrow x^2 + \frac{1}{x^2} + 2 = 289$$

$$\Rightarrow x^2 + \frac{1}{x^2} = 289 - 2 = 287$$

$$\Rightarrow \text{Radius of circle} = r = 287$$

$$\therefore \text{Circumference} = 2\pi r$$

$$= 2 \times \pi \times 287 = 574\pi$$

\Rightarrow Ans - (C)

Question 120

The radius of wheel moving on a road, is 84^3 cm. How many rounds it will take to complete 55 meter distance.

A 10

B 11

C 100

D 55

Answer: C

Explanation:

$$\text{Radius} = r = 84^3 \text{ cm}$$

$$\text{Distance covered in 1 revolution} = \text{Circumference of wheel} = 2\pi r$$

$$= 2 \times \frac{22}{7} \times \frac{35}{4} = 55 \text{ cm}$$

$$\Rightarrow \text{Required number of revolutions to cover } 55 \text{ m} = \frac{55 \times 100}{55} = 100$$

\Rightarrow Ans - (C)

Instructions

The table given below shows the statistics of top 10 scorers in IPL 2016. Few entries are missing in the table. Here INN, AVG, and SR stands for innings played, batting average, and batting strike rate respectively. Based on the table answer the following question:

(Strike rate = Runs / balls faced \times 100) (AVG = Runs / INN - NOT OUT)

Player	INN	Runs	Not Out	Balls Faced	AVG	SR	4s	6s
Virat Kohli	12	752	3	508		148.03	60	28
AB de Villers	12	597	2	344	59.7	173.55	51	32
David Warner	12	567	2		56.7	155.77		23
Ajinkya Rahane	13	461		364	46.1		50	9
Rohit Sharma	13	459	3	351	45.9	130.77	45	
Gautam Gambhir	12	449	2	360	44.9	124.72	50	5
Shikhar Dhawan	12	402		352	50.25	114.2		4
Quinton de Kock	11	385	1	266	38.5		47	12
Murali Vijay	12	378	1	315	34.36		44	6
Ambati Rayudu	12	334	1	278	30.36	120.14	28	12

Question 121

How many total balls were faced by Warner ?

- A 331
- B 364
- C 423
- D 286

Answer: B

Explanation:

Strike rate = runs scored / balls faced \times 100

Let balls faced by Warner = x

$$\Rightarrow \frac{567}{x} \times 100 = 155.77$$

$$\Rightarrow x = \frac{56700}{155.77} = 363.99 \approx 364$$

\Rightarrow Ans - (B)

Question 122

Approximately by what percent strike rate of Rahane is greater/lower than strike rate of Kock ?

- A 12% greater
- B 12% lower
- C 10% greater
- D 10% lower

Answer: B

Explanation:

Strike rate = runs scored / balls faced \times 100

$$\text{Rahane's strike rate} = \frac{461}{364} \times 100 \approx 127\%$$

$$\text{Similarly, Kock's strike rate} = \frac{385}{266} \times 100 \approx 145\%$$

=> Rahane's strike rate is **lower** than Kock's strike rate by = $\frac{(145-127)}{145} \times 100$

$$= \frac{1800}{145} \approx 12\%$$

=> Ans - (B)

Question 123

How many runs were scored by hitting sixes taking all the players together ?

A 780

B 880

C 786

D 886

Answer: C

Explanation:

Runs scored by sixes

$$= (28 + 32 + 23 + 9 + 5 + 4 + 12 + 6 + 12) \times 6$$

$$= 131 \times 6 = 786$$

=> Ans - (C)

Question 124

By what percent approximately is the batting average of Virat Kohli more than that of Gautam Gambhir ?

A 80

B 85

C 75

D 70

Answer: B

Explanation:

$$\text{Virat Kohli's batting average} = \frac{752}{(12-3)} = \frac{752}{9} \approx 83.5\%$$

$$\text{Gautam Gambhir's batting average} = \frac{449}{(12-2)} = \frac{449}{10} \approx 45\%$$

$$\Rightarrow \text{Required \%} = \frac{(83.5-45)}{45} \times 100$$

$$= \frac{3850}{45} \approx 85\%$$

=> Ans - (B)

Question 125

What is the difference between the strike rate of Murali Vijay and that of Rohit Sharma ?

A 10.77

B 12.75

C 30.77

D 15.35

Answer: A

Explanation:

Strike rate = runs scored / balls faced $\times 100$

Murali Vijay's strike rate = $\frac{378}{315} \times 100 = 120\%$

Rohit Sharma's strike rate = 130.77%

=> Required difference = $130.77 - 120 = 10.77$

=> Ans - (A)

Instructions

For the following questions answer them individually

Question 126

Find the value of $\cot \frac{\pi}{32} - \tan \frac{\pi}{32} - 2 \cot \frac{\pi}{16}$

A $4 \cot \frac{\pi}{8}$

B 0

C $2 \cot \frac{\pi}{8}$

D $\cot \frac{\pi}{8}$

Answer: B

Explanation:

Expression : $\cot \frac{\pi}{32} - \tan \frac{\pi}{32} - 2 \cot \frac{\pi}{16}$

$$= \left(\frac{\cos \frac{\pi}{32}}{\sin \frac{\pi}{32}} - \frac{\sin \frac{\pi}{32}}{\cos \frac{\pi}{32}} \right) - 2 \cot \frac{\pi}{16}$$

$$= \left(\frac{\cos^2 \frac{\pi}{32} - \sin^2 \frac{\pi}{32}}{\sin \frac{\pi}{32} \times \cos \frac{\pi}{32}} \right) - 2 \cot \frac{\pi}{16}$$

$\therefore \cos^2 \theta - \sin^2 \theta = \cos 2\theta$ and multiplying and divide by 2,

$$= \left(\frac{2 \cos \frac{\pi}{16}}{2 \sin \frac{\pi}{32} \cdot \cos \frac{\pi}{32}} \right) - 2 \cot \frac{\pi}{16}$$

Also, $2 \sin \theta \cdot \cos \theta = \sin 2\theta$

$$= \left(\frac{2 \cos \frac{\pi}{16}}{\sin \frac{\pi}{16}} \right) - 2 \cot \frac{\pi}{16}$$

$$= 2 \cot \frac{\pi}{16} - 2 \cot \frac{\pi}{16} = 0$$

=> Ans - (B)

Question 127

The angle of elevation of the sun when the length of the shadow of a pole is equal to its height is:

A 30°

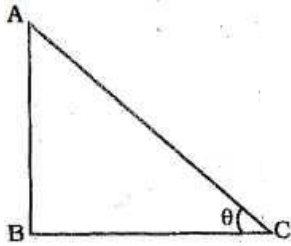
B 45°

C 60°

D 90^0

Answer: B

Explanation:



AB is the pole and it is given that $AB = BC$

$$\Rightarrow \tan \theta = \frac{AB}{BC}$$

$$\Rightarrow \tan \theta = 1 = \tan(45^\circ)$$

$$\Rightarrow \theta = 45^\circ$$

\Rightarrow Ans - (B)

Question 128

If the product of three consecutive numbers is 210 then sum of the smaller number is:

A 3

B 4

C 5

D 11

Answer: D

Explanation:

Prime factorization of $210 = 2 \times 3 \times 5 \times 7$

Thus, $210 = 5 \times 6 \times 7$

\therefore Sum of the smaller numbers = $5 + 6 = 11$

\Rightarrow Ans - (D)

Question 129

If 25 is added to a number it becomes 3 less than thrice of the number. Then number is:

A 15

B 14

C 19

D 20

Answer: B

Explanation:

Let the number be x

According to ques,

$$\Rightarrow x + 25 = 3x - 3$$

$$\Rightarrow 3x - x = 25 + 3$$

$$\Rightarrow 2x = 28$$

$$\Rightarrow x = \frac{28}{2} = 14$$

\Rightarrow Ans - (B)

Question 130

What is the value of m in the quadratic equation $x^2 + mx + 24 = 0$ if one of its roots is $\frac{3}{2}$

A $-\frac{45}{2}$

B 16

C $-\frac{21}{2}$

D $-\frac{35}{2}$

Answer: D

Explanation:

Putting $x = \frac{3}{2}$ in the quadratic equation : $x^2 + mx + 24 = 0$

$$\Rightarrow \left(\frac{3}{2}\right)^2 + m\left(\frac{3}{2}\right) + 24 = 0$$

$$\Rightarrow \frac{9}{4} + 24 + \frac{3m}{2} = 0$$

$$\Rightarrow \frac{3m}{2} = -\left(\frac{96+9}{4}\right)$$

$$\Rightarrow m = \frac{-105}{4} \times \frac{2}{3}$$

$$\Rightarrow m = \frac{-35}{2}$$

\Rightarrow Ans - (D)

Question 131

Last year, 5 companies had an average of 16 non working days each. This year 3 companies had 10 more non working days each, and 2 companies had 5 fewer non working days each. What was the average number of non working days given by the same companies this year ?

A 12

B 18

C 20

D 22

Answer: C

Explanation:

Total number of non working days by 5 companies last year = $5 \times 16 = 80$

Non working days this year = $80 + (3 \times 10) - (2 \times 5) = 100$

$$\Rightarrow \text{Required average} = \frac{100}{5} = 20$$

\Rightarrow Ans - (C)

Question 132

8 litres of water is added to 32 litres of a solution containing 20% of alcohol in water. What is the approximate concentration of alcohol in the solution now ?

- A 24%
- B 16%
- C 8%
- D 12%

Answer: B

Explanation:

In 32 litres of solution, quantity of alcohol = $\frac{20}{100} \times 32 = 6.4$ litres

=> Quantity of water = $32 - 6.4 = 25.6$ litres

On adding 8 litres of water, total solution = $32 + 8 = 40$ litres

=> Required % = $\frac{6.4}{40} \times 100 = 16\%$

=> Ans - (B)

Question 133

Rama mixes 20% of kerosene to his petrol and then he sells the whole mixture at the price of petrol. If the cost price of the kerosene is 40% of the CP of petrol. What is the net profit %?

- A 11.11%
- B 11.5%
- C 12.5%
- D 9.5%

Answer: A

Explanation:

Let CP of petrol = Rs. 100

=> CP of kerosene = $\frac{40}{100} \times 100 = Rs. 40$

Now, 20% of kerosene is added, thus cost price of 1 litre petrol and 200 ml kerosene = $(100 + 8) = Rs. 108$

Selling price = $(100 + 20) = Rs. 120$

\therefore Profit % = $\frac{(120-108)}{108} \times 100$

= $\frac{100}{9} = 11.11\%$

=> Ans - (A)

Question 134

Which of the following fractions does not lie between $\frac{5}{6}$ and $\frac{8}{15}$?

A $\frac{2}{3}$

B $\frac{3}{4}$

C $\frac{4}{5}$

D $\frac{6}{7}$

Answer: D

Explanation:

$\frac{5}{6} = 0.83$ and $\frac{8}{15} = 0.53$

(A): $\frac{2}{3} = 0.6$

(B): $\frac{3}{4} = 0.75$

(C): $\frac{4}{5} = 0.8$

(D): $\frac{6}{7} = 0.85$

Thus, $\frac{6}{7}$ does not lie between $\frac{5}{6}$ and $\frac{8}{15}$

=> Ans - (D)

Question 135

A balance of a trader weighs 20% less than it should be. Still the trader mark-up his goods to get the overall profit of 35%. What is mark-up on the cost price ?

A 7%

B 8%

C 9%

D 8.5%

Answer: B

Explanation:

Profit % = 35%

Thus, mark up on cost price = $[35 - 20 - (\frac{35 \times 20}{100})]\%$

= $15 - 7 = 8\%$

=> Ans - (B)

Question 136

If A earns 25% more than B then how much percent does B earns less than A?

A 15%

B 20%

C 25%

D 30%

Answer: B

Explanation:

Let B's income = Rs. 100

=> A's income = Rs. 125

$$\therefore \text{Required \%} = \frac{(125-100)}{125} \times 100$$

$$= \frac{100}{5} = 20\%$$

=> Ans - (B)

Question 137

What is the area of the triangle formed by points (0,0), (3,4),(4,3) ?

A 4 units^2

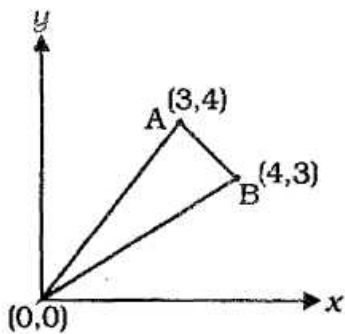
B $\frac{7}{2} \text{ units}^2$

C $\frac{5}{2} \text{ units}^2$

D $\frac{5}{3} \text{ units}^2$

Answer: B

Explanation:



Points O(0,0), A(3,4) and B(4,3)

$$\text{Area of } \triangle OAB = \left| \frac{x_1(y_2 - y_3) + x_2(y_3 - y_1) + x_3(y_1 - y_2)}{2} \right|$$

$$= \left| \frac{0(4-3) + 3(3-0) + 4(0-4)}{2} \right|$$

$$= \left| \frac{9-16}{2} \right| = \frac{7}{2} \text{ sq. units}$$

=> Ans - (B)

Question 138

If $\sin \theta = a \cos \phi$ and $\cos \theta = b \sin \phi$, then the value of $(a^2 - 1) \cot^2 \phi + (1 - b^2) \cot^2 \theta$ is equal to:

A $\frac{a^2 + b^2}{a^2}$

B $\frac{a^2 + b^2}{b^2}$

C $\frac{a^2 - b^2}{b^2}$

D $\frac{a^2 - b^2}{a^2}$

Answer: D

Explanation:

Given : $\sin \theta = a \cos \phi$ and $\cos \theta = b \sin \phi$ -----(i)

$$\text{To find : } (a^2 - 1)\cot^2\phi + (1 - b^2)\cot^2\theta$$

$$= (a^2 - 1)\frac{\cos^2\phi}{\sin^2\phi} + (1 - b^2)\frac{\cos^2\theta}{\sin^2\theta}$$

$$= \frac{(a^2 - 1)\cos^2\phi \cdot \sin^2\theta + (1 - b^2)\cos^2\theta \cdot \sin^2\phi}{\sin^2\phi \cdot \sin^2\theta}$$

$$= \frac{a^2\cos^2\phi \cdot \sin^2\theta - \cos^2\phi \cdot \sin^2\theta + \cos^2\theta \cdot \sin^2\phi - b^2\cos^2\theta \cdot \sin^2\phi}{\sin^2\phi \cdot \sin^2\theta}$$

Substituting value from equation (i), we get :

$$= \frac{\sin^2\theta \cdot \sin^2\theta - \cos^2\phi \cdot \sin^2\theta + \cos^2\theta \cdot \sin^2\phi - \cos^2\theta \cdot \cos^2\theta}{\sin^2\phi \cdot \sin^2\theta}$$

$$= \frac{\sin^4\theta - \cos^4\theta - \cos^2\phi \cdot \sin^2\theta + \cos^2\theta \cdot \sin^2\phi}{\sin^2\phi \cdot \sin^2\theta}$$

$$= \frac{(\sin^2\theta - \cos^2\theta)(\sin^2\theta + \cos^2\theta) - \cos^2\phi \cdot \sin^2\theta + \cos^2\theta \cdot \sin^2\phi}{\sin^2\phi \cdot \sin^2\theta}$$

Using, $(\sin^2\theta + \cos^2\theta = 1)$

$$= \frac{\sin^2\theta - \cos^2\theta - \cos^2\phi \cdot \sin^2\theta + \cos^2\theta \cdot \sin^2\phi}{\sin^2\phi \cdot \sin^2\theta}$$

$$= \frac{\sin^2\theta - \cos^2\phi \cdot \sin^2\theta - \cos^2\theta + \cos^2\theta \cdot \sin^2\phi}{\sin^2\phi \cdot \sin^2\theta}$$

$$= \frac{\sin^2\theta(1 - \cos^2\phi) - \cos^2\theta(1 - \sin^2\phi)}{\sin^2\phi \cdot \sin^2\theta}$$

$$= \frac{\sin^2\theta(\sin^2\phi) - \cos^2\theta(\cos^2\phi)}{\sin^2\phi \cdot \sin^2\theta}$$

$$= 1 - \left(\frac{\cos^2\theta}{\sin^2\phi}\right)\left(\frac{\cos^2\phi}{\sin^2\theta}\right)$$

$$= 1 - \frac{b^2}{a^2}$$

$$= \frac{a^2 - b^2}{a^2}$$

=> Ans - (D)

Question 139

What is $\frac{(x^2 - y^2)^3 + (y^2 - z^2)^3 + (z^2 - x^2)^3}{(x - y)^3 + (y - z)^3 + (z - x)^3}$

A $\frac{(x + y)(y + z)}{(x + z)}$

B $(x + y)^3(y + z)^3(z + x)^3$

C $(x + y)(y + z)(z + x)$

D $(x + y)(y + z)$

Answer: C

Explanation:

$$(x^2 - y^2) + (y^2 - z^2) + (z^2 - x^2) = 0$$

$$\therefore \text{If } (a + b + c) = 0, \text{ then } a^3 + b^3 + c^3 = 3abc$$

$$\therefore (x^2 - y^2)^3 + (y^2 - z^2)^3 + (z^2 - x^2)^3 = 3(x^2 - y^2)(y^2 - z^2)(z^2 - x^2)$$

$$\text{Similarly, } (x - y) + (y - z) + (z - x) = 0$$

$$\text{Thus, } (x - y)^3 + (y - z)^3 + (z - x)^3 = 3(x - y)(y - z)(z - x)$$

$$\therefore \frac{(x^2 - y^2)^3 + (y^2 - z^2)^3 + (z^2 - x^2)^3}{(x - y)^3 + (y - z)^3 + (z - x)^3}$$

$$= \frac{3(x^2 - y^2)(y^2 - z^2)(z^2 - x^2)}{3(x - y)(y - z)(z - x)}$$

$$= \frac{(x-y)(x+y)(y-z)(y+z)(z-x)(z+x)}{(x-y)(y-z)(z-x)}$$

$$= (x+y)(y+z)(z+x)$$

=> Ans - (C)

Question 140

The difference between C I and S I for 2 years at 10% rate of interest is Rs. 4. Find the sum of money.

A 400

B 200

C 300

D 800

Answer: A

Explanation:

Let sum of money = Rs. P and rate of interest = $R = 10\%$

$$\text{Difference (for 2 years)} = \frac{PR^2}{(100)^2}$$

$$\Rightarrow \frac{P \times 10 \times 10}{10000} = 4$$

$$\Rightarrow P = 4 \times 100 = \text{Rs. } 400$$

=> Ans - (A)

Question 141

A right circular cylindrical tunnel of diameter 5 m and length 10 m is to be constructed from a sheet of iron. The area of sheet required will be:

A 52π

B 50π

C 51π

D 49π

Answer: B

Explanation:

Radius = $r = 2.5$ m and height = $h = 10$ m

Surface area of cylinder = $2\pi rh$

$$= 2 \times \pi \times 2.5 \times 10$$

$$= 50\pi \text{ m}^2$$

=> Ans - (B)

Question 142

If $(\frac{1}{5})^{3y} = 0.008$, then the a value of $(0.25)^y$ is:

A 0.25

- B 6.25
- C 2.5
- D 53

Answer: A

Explanation:

Given : $(\frac{1}{5})^{3y} = 0.008$

$\Rightarrow (\frac{1}{5})^{3y} = \frac{8}{1000} = \frac{1}{125}$

$\Rightarrow (\frac{1}{5})^{3y} = (\frac{1}{5})^3$

$\Rightarrow 3y = 3$

$\Rightarrow y = \frac{3}{3} = 1$

$\therefore (0.25)^y = (0.25)^1 = 0.25$

\Rightarrow Ans - (A)

Question 143

The number $334 \times 545 \times 7^p$ is divisible by 3340 if p is at least.

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

Answer: A

Explanation:

$334 \times 545 \times 7^p$ is divisible by 3340.

$\Rightarrow 334 \times (5 \times 109) \times 7^p$ is divisible by $334 \times 5 \times 2$

Clearly, $p = 2$

\Rightarrow Ans - (A)

Question 144

If 42 persons consume 144 kg of wheat in 15 days, then in how many days will 30 persons consume 48 kg of wheat ?

- A 8 days
- B 7 days
- C 12 days
- D 6 days

Answer: B

Explanation:

Using, $\frac{M_1 D_1}{W_1} = \frac{M_2 D_2}{W_2}$, where M is number of men, D is number of days and W is work done.

Let in x days, 30 persons will consume 48 kg of wheat.

According to ques,

$$\Rightarrow \frac{42 \times 15}{144} = \frac{30 \times x}{48}$$

$$\Rightarrow \frac{7 \times 5}{8} = \frac{5x}{8}$$

$$\Rightarrow x = 7$$

\therefore 30 persons will consume 48 kg of wheat in **7 days**.

\Rightarrow Ans - (B)

Question 145

The measures of three angles of a quadrilateral are in the ratio 1 : 2 : 3 . If the sum of these three measures of the fourth angle, find the smallest angle

A 30°

B 40°

C 60°

D 50°

Answer: A

Explanation:

Let the measures of three angles of the quadrilateral be x° , $2x^\circ$ and $3x^\circ$

$$\Rightarrow \text{4th angle} = (x^\circ + 2x^\circ + 3x^\circ) = 6x^\circ$$

$$\text{Thus, sum of all angles of a quadrilateral} = x^\circ + 2x^\circ + 3x^\circ + 6x^\circ = 360^\circ$$

$$\Rightarrow 12x = 360^\circ$$

$$\Rightarrow x = \frac{360^\circ}{12} = 30^\circ$$

\therefore Smallest angle = $x = 30^\circ$

\Rightarrow Ans - (A)

Question 146

Dhiru can dig $\frac{1}{a}$ of a field in 20 hours. What fraction of the same field can Kaku dig in 20 hours if the two of them can dig the field in 60 hours, working together at their respective rates?

A $\frac{(a-3)}{a}$

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

C $\frac{3a}{(a-3)}$

D $\frac{(a-3)}{3a}$

Answer: D

Explanation:

Dhiru can dig $\frac{1}{a}$ of a field in 20 hours.

\Rightarrow Dhiru digs 1 part of field in $20a$ hours

$$\text{Work done by Kaku} = \frac{1}{60} - \frac{1}{20a}$$

$$= \frac{a-3}{60a}$$

$$\therefore \text{Part of field dug by Kaku in 1 hour} = 20 \times \frac{(a-3)}{60a}$$

$$= \frac{(a-3)}{3a}$$

=> Ans - (D)

Question 147

If h, C, V are respectively the height, the curved surface and the volume of a cone, then $3\pi Vh^3 - C^2h^2 + 9V^2 = ?$

A 0

B 3

C $\frac{1}{2}$

D 11

Answer: A

Explanation:

Let slant height of cone = l units and radius = r units

$$\text{Thus, } l = \sqrt{h^2 + r^2}, V = \frac{1}{3}\pi r^2 h \text{ and } C = \pi r l$$

$$\text{To find: } 3\pi Vh^3 - C^2h^2 + 9V^2$$

$$= [3\pi \times (\frac{1}{3}\pi r^2 h) \times h^3] - [(\pi r l)^2 \times h^2] - [9 \times (\frac{1}{3}\pi r^2 h)^2]$$

$$= [\pi^2 r^2 h^4] - [\pi^2 r^2 h^2 (r^2 + h^2)] + [\pi^2 r^4 h^2]$$

$$= (\pi^2 r^2 h^4) - (\pi^2 r^4 h^2) - (\pi^2 r^2 h^4) + (\pi^2 r^4 h^2)$$

$$= 0$$

=> Ans - (A)

Question 148

If $\frac{x^3+3y^2x}{y^3+3x^2y} = \frac{35}{19}$, what is $\frac{x}{y} =$

A $\frac{7}{6}$

B $\frac{5}{6}$

C $\frac{5}{1}$

D $\frac{7}{1}$

Answer: C

Explanation:

$$\text{Given: } \frac{x^3+3y^2x}{y^3+3x^2y} = \frac{35}{19}$$

By componendo and dividendo,

$$\Rightarrow \frac{x^3+3y^2x+(y^3+3x^2y)}{x^3+3y^2x-(y^3+3x^2y)} = \frac{35+19}{35-19} = \frac{54}{16}$$

$$\Rightarrow \frac{(x+y)^3}{(x-y)^3} = \frac{27}{8} = \left(\frac{3}{2}\right)^3$$

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

By componendo and dividendo again, we get :

$$\frac{x+y+x-y}{x+y-x+y} = \frac{3+2}{3-2}$$

$$\Rightarrow y = 5$$

\Rightarrow Ans - (C)

Question 149

Three numbers are such that their sum is 50, product is 3750 and the sum of their reciprocals is $\frac{31}{150}$. Find the sum of the squares of the three numbers.

A 2500

B 1250

C 950

D 122

Answer: C

Explanation:

Let the numbers be x, y, z

$$\text{Given : } (x + y + z) = 50, xyz = 3750 \text{ and } \frac{1}{x} + \frac{1}{y} + \frac{1}{z} = \frac{31}{150}$$

$$\text{Now, } \frac{1}{x} + \frac{1}{y} + \frac{1}{z} = \frac{xy+yz+zx}{xyz}$$

$$\Rightarrow (xy + yz + zx) = \frac{31}{150} \times 3750 = 775$$

$$\therefore (x + y + z)^2 = x^2 + y^2 + z^2 + 2(xy + yz + zx)$$

$$\Rightarrow (50)^2 = (x^2 + y^2 + z^2) + 2(775)$$

$$\Rightarrow x^2 + y^2 + z^2 = 2500 - 1550 = 950$$

\Rightarrow Ans - (C)

Question 150

A certain amount grows at an annual interest rate of 12%, compounded monthly. Which of the following equations can be solved to find the number of years, y , that it would take for the investment to increase by a factor of 64 ?

A $64 = (1.01)^{12y}$

B $\frac{1}{64} = (1.04)^{12y}$

C $64 = (1.04)^{12y}$

D $8 = (1.01)^{6y}$

Answer: A

Explanation:

Rate of interest = 12% p.a. = 1% per month

Time = $12y$ months

Let principal = Re 1 and thus amount = Rs. 64

$$\therefore A = P\left(1 + \frac{R}{100}\right)^T$$

$$\Rightarrow 64 = 1\left(1 + \frac{1}{100}\right)^{12y}$$

$$\Rightarrow 64 = (1.01)^{12y}$$

\Rightarrow Ans - (A)

Instructions

For the following questions answer them individually

Question 151

Choose the word opposite in meaning to the given word.

Devout

- A Plous
- B Pure
- C Treacherous
- D Ardent

Answer: C

Question 152

In the following questions, some parts of the sentence have errors and some are correct. Find out of which part of the a sentence has an error and choose the appropriate option. If the sentence is free from error, choose option corresponding to 'No Error'.

She exercised discretion in investigating whether her husband eloped with his ex-girlfriend.

- A Discretion in
- B Investigating whether
- C Eloped with
- D No error

Answer: D

Question 153

Out of the four alternatives, choose the one which best expresses the meaning of the given word.

Achieve

- A Accomplish
- B Destroy
- C Abdicate
- D Bifurcate

Answer: A

Question 154

Four words are given, out of which only one word is correctly spelt. Find the correctly spelt word.

- A Flatered
- B Voilations
- C Cuttlery
- D Detainees

Answer: D

Question 155

Out of the four alternatives, choose the one which best expresses the meaning of the given word.

Precarious

- A Perilous
- B Salubrious
- C Innocuous
- D Inoffensive

Answer: A

Question 156

Four alternatives are given for the Idiom/Phrase printed in bold. Choose the alternative which best expresses the meaning of Idiom/Phrase.

Turn a blind eye

- A To take on a task that is way too big
- B To work late into the night
- C To present a counter argument
- D To ignore situation, facts or reality

Answer: D

Question 157

Choose the word opposite in meaning to the given word.

Apparition

- A Realness
- B Perceptible
- C Illusion
- D Undetectable

Answer: A

Question 158

In the following question, Sentences given with a blank to be filled in with an appropriate word(s). Four alternatives are suggested. Choose the correct alternative out of the four.

He had wonderful gifts of ___ and spoke to the birds.

- A uptight
- B folly
- C insight
- D dulness

Answer: C

Question 159

Four alternatives are given for the Idiom/Phrase printed in bold. Choose the alternative which best expresses the meaning of Idiom/Phrase.

Whole bag of tricks

- A Make use of the best resources from the ones that are available
- B Make use of all the possibilities or techniques to achieve something
- C Make use of all opportunities that cross your path
- D Make use of all tricks to win the hearts or people

Answer: B

Question 160

Four alternatives are given for the Idiom/Phrase printed in bold. Choose the alternative which best expresses the meaning of the Idiom/Phrase.

Pull a rabbit out of a hat

- A To let something happen and you have no control over it
- B To do something unexpected
- C To be someone worth having
- D To make a special effort

Answer: B

Question 161

Out of the four alternatives, choose the one which can be substituted for the given words/sentence.

A person who thinks he is ill all the time

- A Hypochondriac
- B Neophyte

C Maniac

D Misanthrope

Answer: A

Question 162

Out of the four alternatives, choose the one which can be substituted for the given words/sentence.
A place where coins are made

A Mint

B Factory

C Connery

D Monetary

Answer: A

Question 163

In the following questions, some parts of the sentence have errors and some are correct. Find out which part of a sentence has an error and choose the appropriate option. If the sentence is free from error, choose corresponding to 'No Error' option.
The lawyer deduced from the existing evidences that the accused was involved in the heinous crime.

A In the heinous crime

B Deduced from the

C Accused was involved

D No error

Answer: D

Question 164

In the following question, a part of the sentence is printed in bold. Below are given alternatives to the bold part which may improve the sentence. Choose the correct alternative. In case no improvement is required, choose "No Improvement" option.

A disgust

B distaste

C resentment

D annoyance

Answer: C

Question 165

In the following questions, Sentence given with a blank to be filled in with an appropriate word(s). Four alternatives are suggested. Choose the correct alternative out of the four.
Rahul was surprised to see a ___ smile on Tarun's face.

A Ugly

- B Symbolic
- C Opaque
- D Genuine

Answer: D

Question 166

In the following question, some parts of the sentence have errors and some are correct. Find out which part of the sentence has an error and choose the appropriate option. If the sentence is free from error, choose corresponding to 'No Error' option.

- A No error
- B Were cheaper
- C Nor the pizza
- D The chips which

Answer: D

Question 167

In the following question, some parts of the sentence have errors and some are correct. Find out which part of the sentence has an error and choose the appropriate option. If the sentence is free from error, choose corresponding to 'No Error' option.
The travellers were pacified had landed on the runway much before the official announcement.

- A Landed on the runway
- B Much before the
- C Were pacified when
- D No error

Answer: C

Question 168

Choose the word opposite in meaning to the given word.
Penurious

- A Destitute
- B Impoverished
- C Impecunious
- D Opulent

Answer: D

Question 169

Four words are given, out of which only one word is correctly spelt. Find the correctly spelt word.

- A Dosile

- B Docile
- C Dusile
- D Dosiel

Answer: B

Question 170

Out of the four alternatives, choose the one which best expresses the meaning of the given word.
Exasperate

- A Tranquilize
- B Alleviate
- C Infuriate
- D Appease

Answer: C

Question 171

Four alternatives are given for the Idiom/Phrase printed in bold. Choose the alternative which best expresses the meaning of the Idiom/Phrase.

Let the chips fall where they may

- A Let your sacrifices in life be known to everyone.
- B Let the difficult situations in life come to an end regardless of the results
- C Let the joys of life take precedence over your sorrows
- D Let something happen without bothering about the consequences

Answer: D

Question 172

In the following question, a part of the sentence is printed in bold. Below are given alternatives to the bold part which may improve the sentence. Choose the correct alternative. In case no improvement is required, choose "No Improvement" option.

The celebration was abandoned due to heavy rains.

- A adjourned
- B postponed
- C inoperative
- D No improvement

Answer: B

Question 173

Choose the word opposite in meaning to the given word.

Accentuate

- A Disparage
- B Enunciate
- C Aggrandize
- D Exacerbate

Answer: A

Question 174

In the following question, a Sentence given with a blank to be filled in with an appropriate word(s). Four alternatives are suggested. Choose the correct alternative out of the four. He completed all projects on time except for two of them, which he found too difficult to __

- A embrace
- B comprehend
- C acknowledge
- D discern

Answer: B

Question 175

Out of the four alternatives, choose the one which can be substituted for the given words/sentence. The act of showing disrespect towards sacred things

- A Congregation
- B Etymology
- C Panjandrum
- D Blasphemy

Answer: D

Question 176

Out of the four alternatives, choose the one which can be substituted for the given words/sentence.

- A Spoonerism
- B Malapropism
- C Bloopers
- D Corpsing

Answer: B

Question 177

In the following question, a part of the sentence is printed in bold. Below are given alternatives to the bold part which may improve the sentence. Choose the correct alternative, In case no improvement is required, choose "No Improvement" option.

It is a myth that drinking within limits helps to improves the health.

- A No improvement
- B help improves
- C helps improving
- D helps improve

Answer: D

Question 178

Four words are given, out of which only one word is correctly spelt. Find the correctly spelt word.

- A Promiscuous
- B Promisscuous
- C Promiscous
- D Promiscuuous

Answer: A

Question 179

Four words are given, out of which only one word is correctly spelt. Find the correctly spelt word.

- A Combersome
- B Cumbersome
- C Combbersom
- D Coombersome

Answer: B

Question 180

Choose the word opposite in meaning to the given word.

Debauched

- A Dissipated
- B Depraved
- C Honourable
- D Unrestrained

Answer: C

Question 181

Out of the four alternatives, choose the one which best expresses the meaning of the given word.

Taciturn

- A Reticent
- B Gregarious
- C Communicative
- D Garrulous

Answer: A

Question 182

Four words are given, out of which only one word is correctly spelt. Find the correctly spelt word.

- A Sattalite
- B Satellite
- C Satallite
- D Satalight

Answer: B

Question 183

Four alternatives are given for the Idiom/Phrase printed in bold. Choose the alternative which best expresses the meaning of the Idiom/Phrase.

Going against the grain

- A Doing things differently from what you usually do
- B Doing things against the wishes of your close relations
- C Doing things which you never heard of
- D Doing things which no one else has ever done till now

Answer: A

Question 184

Out of the four alternatives, choose the one which can be substituted for the given words/sentence.

Art of designing or writing on wax

- A Cartography
- B Cerography
- C Psephology
- D Etymology

Answer: B

Question 185

In the following question, a part of the sentence is printed in bold. Below are given alternatives to the bold part which may improve the sentence. Choose the correct alternatives. In case no improvement is required, choose 'No Improvement' option.

Her new shoes ensure her that she does not fall while running.

- A ensures to her that
- B ensures her that
- C ensure that
- D No improvement

Answer: C

Question 186

In the following question, some parts of the sentence have errors and some are correct. Find out which part of the sentence has an error and choose the appropriate option. If the sentence is free from error, choose corresponding to 'No Error' option.

Since my mother was angry so
I did not utter a word.

- A Was angry so
- B Utter a word
- C Since my mother
- D No Error

Answer: A

Question 187

In the following question, a sentence given with blanks to be filled in with an appropriate word(s). Four alternatives are suggested. Choose the correct alternative out of the four. The mother looked ____ as her child began to walk much before the month prescribed by the doctors.

- A astonishingly
- B predictably
- C irately
- D menacingly

Answer: A

Question 188

In the following question, a sentence is given with a blank to be filled in with an appropriate word(s). Four alternatives are suggested. Choose the correct alternative out of the four.

She was so ____ in her manner that he was mesmerised by her.

- A deferential

- B disputatious
- C impertinent
- D insolent

Answer: A

Question 189

Out of the four alternatives, choose the one which best expresses the meaning of the given word.

Acquiescent

- A Tractable
- B Insurgent
- C Obstreperous
- D Recalcitrant

Answer: A

Question 190

In the following question, a part of the sentence is printed in bold. Below are given alternatives to the bold part which may improve the sentence. Choose the correct alternative. In case no improvement is required, choose "No Improvement" option.

As much as I tried to reduce may weight. I ended up nowhere.

- A ended up to somewhere
- B ended in less weight
- C ended in lesser weight
- D No improvement

Answer: D

Instructions

In the following questions, read the passage carefully and choose the best answer to each question out of the four alternatives.

Passage 1

Ultimately, we all have to decide for ourselves what constitutes failure, but the world is quite eager to give you a set of criteria if you let it. So I think it fair to say that by any conventional measure, a mere seven years after my graduation day, I had failed on an epic scale. An exceptionally short-lived marriage had imploded, and I was jobless, a lone parent, and as poor as it is possible to be in modern Britain, without being homeless. The fears that my parents had and for me, and that I had had for myself, had both come to pass, and by every usual standard, I was the biggest failure I knew.

Now, I am not going to stand here and tell you that failure is fun. That period of my life was a dark one, and I had no idea that there was going to be what the press has since represented as a kind of fairy tale resolution. I had no idea then how far the tunnel extended, and for a long time, any light at the end of it was a hope rather than a reality.

So why do I talk about the benefits of failure? Simply because failure meant a stripping away of the inessential. I stopped pretending to myself that I was anything other than what I was, and began to direct all my energy into finishing the only work that mattered to me. Had I really succeeded at anything else. I might never have found the determination to succeed in the one arena I believed I truly belonged. I was set free, because my greatest fear had been realised, and I was still alive, and I still had a daughter typewriter and a big idea. And so rock bottom became the solid foundation on which I rebuilt my life.

You might never fail on the scale I did, but some failure in life is inevitable. It is impossible to live without failing at something, unless you live so cautiously that you might as well not have lived at all in which case, you fail by default.

Failure gave me an inner security that I had never attained by passing examinations. Failure taught me things about myself that I could have learned no other way. I discovered that I had a strong will, and more discipline than I had suspected; I also found out that I had

friends whose value was truly above the price of rubies.

The knowledge that you have emerged wiser and stronger from setbacks means that you are, ever after, secure in your ability to survive. You will never truly know yourself, or the strength of your relationships, until both have been tested by adversity. Such knowledge is a true gift, for all that it is painfully won, and it has been worth more than any qualification I ever earned.

Question 191

According to the author, what can be defined as 'failure'?

- A Failing on a epic scale
- B Not truly knowing yourself
- C Living your life so cautiously that you do not fail
- D A situation where all your fears come to pass

Answer: A

Question 192

Which of the following is a major benefit of failure according to the passage ?

- A Failure helps in stripping away the inessential
- B Failure teaches you things which you could not have learnt in any other way.
- C Failure gives you an inner security which cannot be otherwise attained.
- D Failure helps you in finding the determination to succeed.

Answer: D

Question 193

Way does the author say that failure is 'inevitable in life'?

- A Because nothing can prevent the caprice of fate.
- B because not all of us are well-acquainted with failure.
- C Because life is difficult and too complicated.
- D Because the fear of failure takes precedence over the desire for success.

Answer: A

Question 194

Which of the following is a suitable title for this passage ?

- A What constitutes failure ?
- B Failure is inevitable in life
- C Failure has its benefits
- D A hope rather than a reality

Answer: C

Question 195

According to the author, with is the impact of failure on person ?

- A A person emerges wiser and stronger implying that he is secure in his ability to survive.
- B A person realises that happiness in life does not depend on the achievements or acquisitions
- C A person realises that his qualifications and CV are not his life.
- D A person realises the strength of his relationships by identifying his true friends.

Answer: A

Explanation:

Passage-2

Long years ago we made a tryst with destiny, and now the time comes when we shall redeem our pledge, not wholly or in full measure, but very substantially. At the stroke of the midnight hour, when the world sleeps, India will awake to life and freedom. A moment comes, which comes but rarely in history, when we step out from the old to the new, when an age ends, and when the soul of a nation, long suppressed, finds utterance. It is fitting that at this solemn moment we take the pledge of dedication to the service of India and her people and to the still larger cause of humanity.

AT the dawn of history India started on her unending quest, and trackless centuries are filled with her striving and the grandeur of her successes and her failures. Through good and ill fortune alike she has never lost sight of that quest or forgotten the ideals which gave her strength. We end today a period of ill fortune and India discovers herself again. The achievement we celebrate today is but a step, an opening of opportunity, to the greater trumps and achievements that await us. Are we brave enough and wise enough to grasp this opportunity and accept the challenge of the future ?

Freedom and power bring responsibility. That responsibility rests upon this Assembly, a sovereign body representing the sovereign people of India. Before the birth of freedom we have endured all the pains of labour and our hearts are heavy with the memory of this sorrow. Some of those pains continue even now Nevertheless the past is over and it is the future that beckons to us now.

That future is not one of ease or resting but of incessant striving so that we might fulfil the pledges we have so often taken and the one we shall take today. The service of India means the service of the millions who suffer. It means the ending of poverty and ignorance and disease and inequality of opportunity. The ambition of the greatest man of our generation has been to, wipe every tear from every eye. That may be beyond us but as long as there are tears and suffering, so long our work will not be over.

And so we have to labour and work hard to given reality to, our dreams. Those dreams are for India, but they are also for the world, for all the nations and peoples are too closely knit together today for any one of them to imagine that it can live apart. Peace has been said to be indivisible, so is freedom, so is prosperity now, and so also is disaster in this one world that can no longer be split into isolated fragments.

To the people of India, whose representatives we are, we make appeal to join us with faith and confidence in this great adventure. This is no time for petty and destructive criticism, no time for ill will or blaming others. We have to build the noble mansion of free India where all her children may dwell.

Question 196

What is the greatest challenging that India faces today as per the passage ?

- A It is a challenge to end poverty, ignorance, disease and inequality of opportunity.
- B It is a challenge to wipe off tears from every year and thus eradicating suffering.
- C It is a challenge to build a noble mansion of free india.
- D It is a challenge to fulfil the pledges that we have so often taken.

Answer: A

Question 197

How can we fulfil our pledges that we have taken in the past and the present ?

- A The people of India need to set a hope that can never be betrayed.
- B The people of India need to provide a service to millions of people who suffer in their country.
- C The people of India need to do labour and hard work to given reality to their dreams.
- D The people of India need to work with more responsibility now which has been brought by power and freedom.

Answer: C

Question 198

Which of the following is the most suitable title for this passage ?

- A A star of hope rises
- B A fateful moment for India
- C The success and failures of India
- D Challenges facing the Indian economy

Answer: B

Question 199

Which of the following statements best describes the message of the passage ?

- A India's futures is filled with incessant striving and providing services to millions of sufferers.
- B India needs to wake up to the call of future and end her sorrows of the past.
- C The independence of India is being celebrated as it has opened the door to the triumphs and achievements that have long awaited us.
- D The birth of freedom has brought in its wake more responsibility of fulfilling our pledges and creating a new history.

Answer: D

Question 200

As per the passage, which of the following statements best compares India's pre-independence (pas) period to the post-independence (future) period ?

- A India's past was a period of poverty and ignorance while its future will be a period of adventure.
- B India's past was a period of slumber while its future will be a period of triumphs.
- C India's past was a period of struggle while its future will be a period of hope, triumphs and achievements.
- D India's past was a period of criticism while its future will be a period of peace.

Answer: C