

Reasoning

Instructions

For the following questions answer them individually

Question 1

In the given question find odd number/word from the given alternatives.

- A 25
- B 9
- C 16
- D 18

Answer: D

Explanation:

Except 18 all the other numbers are perfect squares.

Hence, option D is the correct answer.

Question 2

In the given question find odd number/word from the given alternatives.

- A Cello
- B Guitar
- C Flute
- D Violin

Answer: C

Explanation:

All except flute are string instruments.

Hence, option C is the correct answer.

Question 3

In question find odd number/word from the given alternatives.

- A Sweetness
- B Elegant
- C Bright
- D Beautiful

Answer: E

Question 4

In dictionary, which word comes fourth in arrangement ?

- A Propense

- B Prophet
- C Prong
- D Propine

Answer: D

Explanation:

Arranging the given words according to the dictionary order, we get

1) C - Prong 2) A - Propense 3) B - prophet 4) D - Propine

Propine comes fourth in arrangement.

Hence, option D is the correct answer.

Question 5

In question select the word from the given alternatives.

Circle : Arc :: Square : ?

- A Line
- B Triangle
- C Sphere
- D Rectangle

Answer: A

Explanation:

Second is a part of first element. Arc is a part of circle and line is a part of square.

Hence, option A is the correct answer.

Question 6

Moderate : Intensify :: Nominal : ?

- A Memorial
- B Expensive
- C Distance
- D Chaos

Answer: B

Explanation:

Moderate is the opposite of Intensify. Likewise Nominal is the opposite of Expensive.

Hence, option B is the correct answer.

Question 7

6,9,12,15,18,?

- A 21
- B 20

C 19

D 22

Answer: A

Explanation:

The pattern followed here is $(n + 3)$

$6 + 3 = 9$, $9 + 3 = 12$, $12 + 3 = 15$, $15 + 3 = 18$, $18 + 3 = 21$.

Hence, option A is the correct answer.

Question 8

107,97,82,62,?

A 52

B 42

C 47

D 37

Answer: D

Explanation:

Given series 107 97 82 62 37

The pattern followed here is that every number is subtracted from 5 multiple starting from 10

$107 - 10 = 97$,

$97 - 15 = 82$,

$82 - 20 = 62$,

$62 - 25 = 37$.

Hence, option D is the correct answer.

Question 9

A I B J C K?

A E M

B E L

C D L

D D M

Answer: C

Explanation:

There are two series in the given question

A, B, C, D and I, J, K, L

The missing elements are D and L

Hence, option C is the correct answer.

Question 10

8, 3, 11, 14, 25, ?

- A 50
- B 39
- C 29
- D 11

Answer: B

Explanation:

$$8 + 3 = 11,$$

$$3 + 11 = 14,$$

$$11 + 14 = 25,$$

$$14 + 25 = 39.$$

Hence, option B is the correct answer.

Question 11

In a certain code, 'SOBER' is written as "RNADQ". How 'LOTUS' can be written in that code ?

- A KNSTR
- B MPUWT
- C KMSTR
- D LMRST

Answer: A

Explanation:

SOBER is written as RNADQ

$$S - I = R, O - I = N, B - I = A, E - I = D, R - I = Q$$

Following the same pattern LOTUS is written as,

$$L - I = K, O - I = N, T - I = S, U - I = T, S - I = R$$

LOTUS can be written as KNSTR

Hence, option A is the correct answer.

Question 12

If $73+82=14$, $91+21=11$, then $86+24=?$

- A 9
- B 62
- C 8
- D 6

Answer: C

Explanation:

The pattern followed here is,

$$(7 - 3) + (8 + 2) = 14,$$

$$(9 - 1) + (2 + 1) = 11,$$

$$(8 - 6) + (2 + 4) = 8.$$

Hence, option C is the correct answer.

Question 13

In a row of girls veena is 12th from the start and 19th from The end. In another row of girls, sunitha is 14th from the start and 20th from The end. How many girls are there in both the rows together ?

A 72

B 65

C 63

D 61

Answer: C

Explanation:

In the 1st row, Veena is 12th from the start and 19th from the end. Total number of persons in the row = 30

In the 2nd row, Sunitha is 14th from the start and 20th from the end. Total number of persons in the row = 33

Total persons in both the rows together = 63

Hence, option C is the correct answer.

Question 14

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

CONCEPTUALISATION

A STATUS

B POINTS

C NOISE

D TOTAL

Answer: A

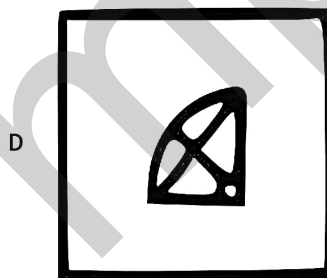
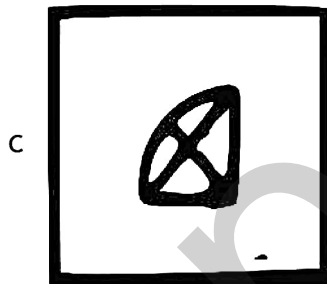
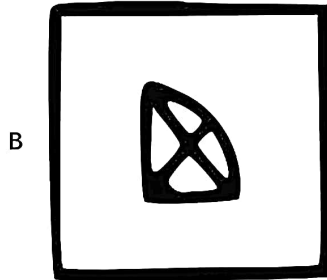
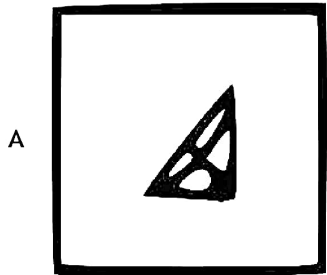
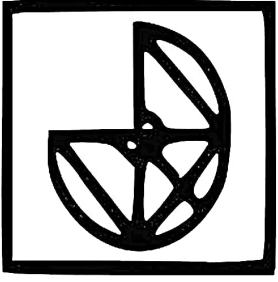
Explanation:

STATUS cannot be formed using the given word as there is only one S in CONCEPTUALISATION

Hence, option A is the correct answer.

Question 15

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



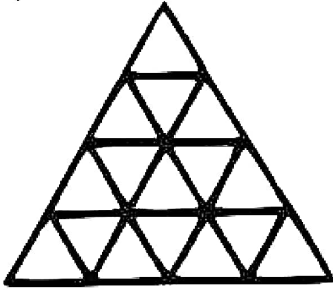
Answer: C

Explanation:

Only option C fits into the given figure.

Question 16

Find out the number of triangles in the given pattern.



- A 23
- B 26
- C 27
- D 28

Answer: C

Explanation:

No of unit triangles = 16

No of triangles with 2 or 3 unit triangles = 0

No of triangles with 4 unit triangles (vertex up + vertex down) = 6 + 1 = 7

No of triangles with 5,6,7,8 unit triangles = 0

No of triangles with 9 unit triangles = 3

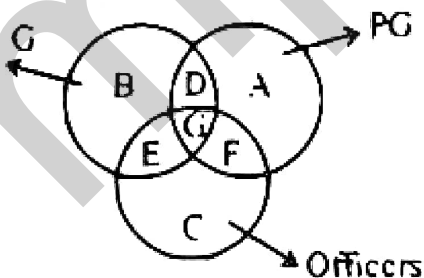
Full triangle = 1

Total number of triangles = 27

Hence, option C is the correct answer.

Question 17

Given below are 3 figures representing graduates, post graduates, officers. Which part represents all the officers who are graduates and post graduates?



- A G
- B D
- C B
- D C

Answer: A

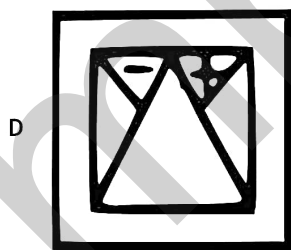
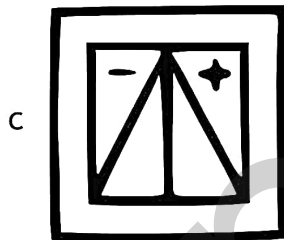
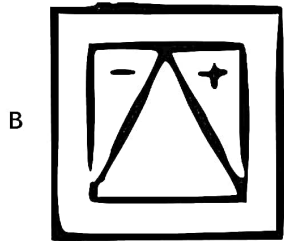
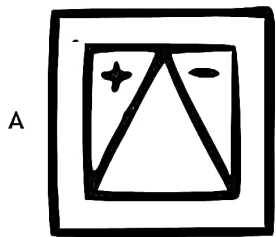
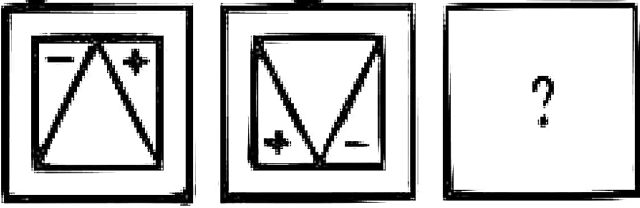
Explanation:

All officers who are graduates and post graduates is the common part of Graduates, Post graduates, and officers i.e G

Hence, option A is the correct answer.

Question 18

Find the missing figure in the series from the given responses.



Answer: E

Question 19

Select the missing number from the given responses.



- A 54
- B 51
- C 48
- D 44

Answer: A

Explanation:

The pattern followed here is $(n \times 2) + 2$

$$5 \times 2 + 2 = 12$$

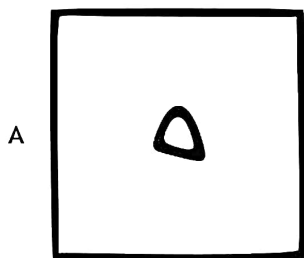
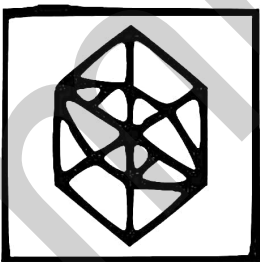
$$12 \times 2 + 2 = 26$$

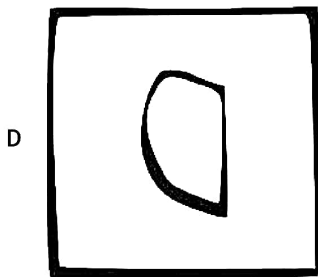
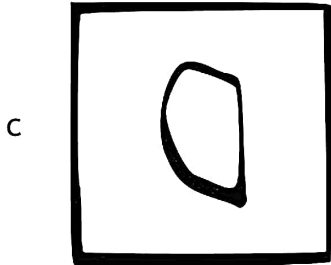
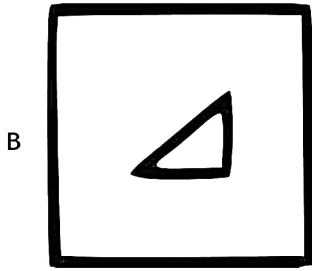
$$26 \times 2 + 2 = 54 \dots\dots$$

Hence, option A is the correct answer.

Question 20

Which of the answer figure is embedded in the question figure ?





Answer: B

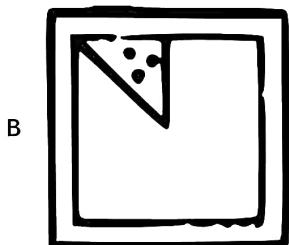
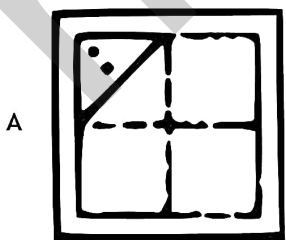
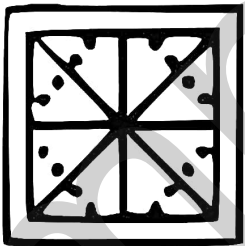
Explanation:

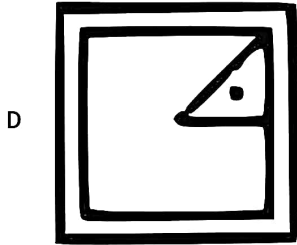
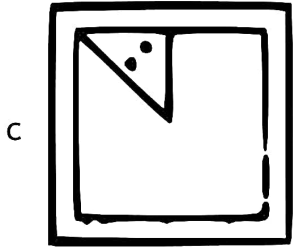
Figure in option B is embedded in the question figure.

Hence, option B is the correct answer.

Question 21

A square piece of paper is folded in a particular manner and punched and then unfolded. The unfolded paper is given below. Find out the manner in which the paper was folded and punched from the answer figure.





Answer: C

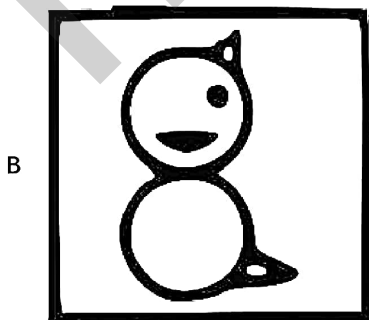
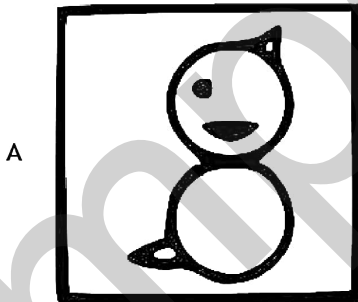
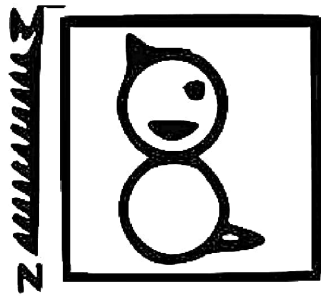
Explanation:

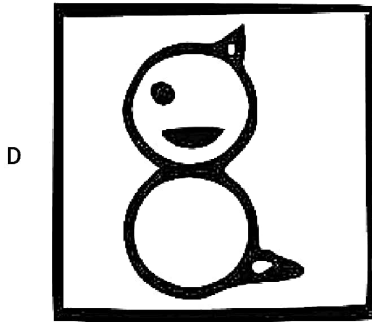
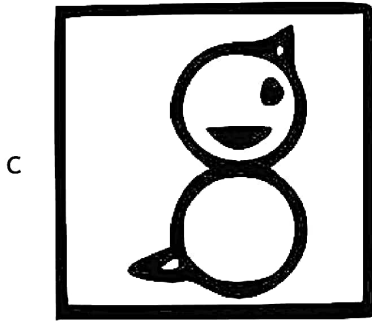
If the paper is folded and punched as shown in option C, then the resulting unfolded paper would look like the one given in the question.

Hence, option C is the correct answer.

Question 22

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





Answer: A

Explanation:

Figure in option A is the mirror image of the given figure.

Question 23

A word is represented by only one set of numbers as given in any one of the alternatives. The sets of numbers given in the alternatives are represented by two classes of alphabets as in two matrices given below. The column and rows of Matrix-I are numbered from 0 to 4 and that of Matrix-II are numbered from 5 to 9. A letter from these matrices can be represented first by its row and next by its column, e.g., I can be represented by 03, 22; etc., and 'R' can be represented by 57, 67 etc., Similarly, you have to identify the set for the word 'BALD'.

Matrix-I

	0	1	2	3	4
0	B	T	D	I	F
1	I	D	B	F	T
2	F	B	I	T	D
3	T	I	F	D	B
4	D	F	T	B	I

Matrix-II

	5	6	7	8	9
5	A	L	R	E	K
6	K	A	L	R	E
7	E	K	A	L	R
8	R	E	K	A	L
9	L	R	E	K	A

- A 12,99,65,24
- B 21,88,95,24
- C 43,55,67,04
- D 34,77,76,42

Answer: B

Explanation:

As per the given information,

B = 00, 12, 21, 34, 43

A = 55, 66, 77, 88, 99

L = 56, 67, 78, 89, 95

D = 02, 11, 24, 33, 40

21,88,95,24 is a probable combination for BALD

Hence, option B is the correct answer.

Question 24

figure

- A fig1
- B fig2
- C fig3
- D fig4

Answer: E

Question 25

figure

- A fig1
- B fig2
- C fig3
- D fig4

Answer: E

English

Instructions

For the following questions answer them individually

Question 26

In question some parts of the sentences have errors and some are correct. Find out which part of a sentence has an error and blacken the oval corresponding to the appropriate letter A,B,C. If a sentence is free from error. Blacken the oval corresponding to D in the answer sheet

- A The number of guests
- B invited to the wedding
- C are one thousand
- D no error.

Answer: C

Explanation:

The correct answer is "The number of guests invited to the weddings is one thousand".

Question 27

In question sentences are given with blanks to be filled in with an appropriate words four alternatives are suggested for each question choose the correct alternative out of the four and indicate it by blackening the appropriate oval in the answer sheet

The photographer rolled a machine _____ the middle _____ the room

- A above, from
- B in, off
- C by, across
- D into, of

Answer: D

Question 28

If I _____ a more reliable car, I _____ to delhi rather than fly

- A would have had, would drive
- B would have, would drive
- C had, had driven
- D had, would drive

Answer: D

Question 29

He's been bitten _____ a dog

- A at
- B from
- C of
- D by

Answer: D

Explanation:

Only option D fits in the given sentence

Question 30

_____ resigned, we would have been forced to sack him

A he not had

B had he not

C hadn't he

D he had not

Answer: B

Explanation:

Only option B fit in the given sentence.

Question 31

Women who swear____beauty products are in for a shock

A with

B for

C in

D by

Answer: D

Explanation:

Swear by = Express great confidence in the use, value, or effectiveness of.

Question 32

_____of people come here to gossip

A few

B most

C a lot

D lot

Answer: C

Explanation:

Only option C fit in the given sentence.

Question 33

Do congratulate him_____ his success

A at

B on

C in

D from

Answer: B

Explanation:

Only option B fit in the given sentence.

Question 34

He is ___ the top of the class

A on

B upon

C in

D at

Answer: D

Explanation:

At the top of one's class means getting highest grades in one's class

Eg: He graduated at the top of his class

Hence, option D is the correct answer.

Question 35

Telling a small lie sometimes enables one to avoid ___ another

A hurting

B nothing

C harming

D stopping

Answer: A

Question 36

in question out of the four alternatives, choose the one which best expresses the meaning of the given word and mark it in the answer sheet

Gall

A Macho

B Bold

C Boastful

D Audacity

Answer: D

Question 37

Choose the word opposite in meaning to the given word and mark it in the answer sheet

Obligatory

- A Exemplary
- B Compulsory
- C Exclusionary
- D Voluntary

Answer: D

Question 38

In question four alternatives are given for the idiom\phrase underlined in the sentence choose the alternative which best expresses the meaning of the idiom\phrase and mark it in the answer sheet.

I am tired of the rat-race in the corporate sector

- A Corruption
- B Misery
- C Unpleasant sight
- D Fierce competition

Answer: D

Question 39

In question four alternatives are given for the idiom\phrase underlined in the sentence choose the alternative which best expresses the meaning of the idiom\phrase and mark it in the answer sheet.

Sachin is an indifferent student he is often all at sea

- A In a state of shock
- B Very knowledgeable
- C In danger
- D Completely confused

Answer: D

Question 40

In question four alternatives are given for the idiom\phrase underlined in the sentence choose the alternative which best expresses the meaning of the idiom\phrase and mark it in the answer sheet.

I am waiting for the old man to kick the bucket so that i can get his money

- A to conclude
- B to kill

- C to die
- D to absolve

Answer: C

Question 41

In the given question, a part of the sentence is underlined. Below are given alternatives to the underlined part at A,B and C which may improve the sentence. Choose the correct alternative. In case no improvement is needed, your answer is D

To contact the police he tried hard

- A He tried to contact the police hard
- B He tried hard to contact the police
- C He tried the police to contact hard
- D No improvement

Answer: B

Explanation:

"He tried hard to contact the police" is the correct sentence.

Hence, option B is the correct answer.

Question 42

He is reputed to be a closedfisted man

- A claw fisted
- B clasped fisted
- C close fisted
- D no improvement

Answer: C

Explanation:

He is reputed to be a close-fisted man would be a correct sentence.

Hence, option C is the correct answer.

Question 43

Its not possible to judge a man by his appearance

- A It's not possible to judge a man by his appearance
- B Its impossible to judge a man by his appearance
- C Its' not impossible to judge a man by his appearance
- D No improvement

Answer: A

Question 44

In the given question out of the four alternatives choose the one which can be substituted for the given words/sentence

To free anything from germs

- A Cauterize
- B Sterilize
- C Antiseptic
- D Antivirus

Answer: B

Explanation:

Sterilize = make (something) free from bacteria or other living microorganisms.

Hence option B is the correct answer.

Question 45

In the given question there are four different words out of which one is correctly spelt. Find the correctly spelt word and indicate it by blackening the appropriate oval in the answer sheet

- A commette
- B committee
- C comittee
- D comitte

Answer: B

Explanation:

Committee is the only word which is correctly spelt.

Hence, option B is the correct answer.

Instructions

There are two kinds of orange trees, the sweet and the sour. The sour orange was the first to be grown in europe. It was first brought in by the moors who attacked and entered southern spain and sicily around the ninth century.

By the eleventh century the moors were quite firmly in control of the countries they had taken over. There they planted many trees including the sour orange. Sour oranges were widely grown in southern europe until the fifteenth century which increased trade with the orient brought sweet oranges are still grown and eaten, sweet oranges to europe. Although some sour oranges are still grown and eaten sweet oranges are tastier than the sour ones.

When christopher columbus sailed for the new world (north and south america) he carried seeds of oranges and many other citrus fruits with him. The seeds were planted on the island of hispaniola. citrus trees grow well in the tropical climate of the west indies and the land now known as florida. Today the united states leads the world in the production of oranges. The state of florida has the greatest number of oranges trees and produces more sweet oranges than any other state or country.

Question 46

When was sweet orange brought to europe

- A Fifteenth century brought the sweet orange to europe
- B The moors invasion brought sweet oranges to europe

- C Increased trade with the orient brought the sweet orange to europe
- D Increased trade with columbus brought the sweet orange to europe

Answer: C

Explanation:

"Sour oranges were widely grown in southern Europe until the fifteenth century which increased trade with the orient brought sweet oranges are

still grown and eaten, sweet oranges to Europe". From the above sentence we can say that option C is the correct answer.

Hence, option C is the correct answer.

Question 47

Which country leads in the production of oranges ?

- A Spain
- B The united states
- C Florida
- D Sicily

Answer: B

Explanation:

From this statement given in the passage, "Today the united states leads the world in the production of oranges". We can conclude that United

states leads in the production of oranges.

Hence, option B is the correct answer.

Question 48

In which climate does the orange grow well

- A Tropical
- B Hot
- C Cold
- D Dry

Answer: A

Explanation:

As mentioned in the passage "Citrus trees grow well in the tropical climate". we can conclude that orange grows well in the tropical climate.

Hence, option A is the correct answer.

Question 49

The orange was first brought to europe by

- A The chinese
- B Christopher columbus

- C Florida
- D The moors

Answer: D

Explanation:

"The sour orange was the first to be grown in Europe. It was first brought in by the Moors". From the above statement given in the passage, we can conclude that sentence in option D is true.

Hence, option D is the correct answer.

Question 50

Which of the following statements is true ?

- A The moors planted many trees including orange in europe
- B The moors planted the sour orange in europe
- C The moors planted many trees.
- D The orients planted sweet oranges in europe

Answer: B

Explanation:

"The sour orange was the first to be grown in Europe. It was first brought in by the Moors who attacked and entered southern Spain and Sicily around the ninth century". From the above statement given in the passage, we can conclude that sentence in option B is true.

Hence, option B is the correct answer.

Quant

Instructions

For the following questions answer them individually

Question 51

A certain number is divided into two parts such that 5 times the first part added to 11 times the second part makes 7 times the whole. The ratio of the first part to the second part is

- A 2:1
- B 5:11
- C 1:2
- D 2:3

Answer: A

Explanation:

Let the number be x and divided into 'a' and ' $x-a$ '

According to the given question,

$$5a + 11(x - a) = 7x$$

$$5a + 11x - 11a = 7x$$

$$4x = 6a \text{ (or) } x = \frac{3}{2}a \dots\dots (1)$$

Ratio between first part and second part

$$a : 2a - a$$

$$a : a(2 - 1)$$

$$a : a(2 - 1)$$

$$2:1$$

Hence, option A is the correct answer.

Question 52

What sum of money is to be divided among 3 persons in the ratio 3:4:7 so that the second man receives 12 only?

- A 21
- B 32
- C 9
- D 42

Answer: D

Explanation:

Let amount distributed among three persons be $3x$, $4x$ $7x$

Second man received 12 rs

$$\therefore 4x = 12 \text{ (or) } x = 3$$

$$\text{Total money distributed} = 14x \text{ (or) } 14(3) \text{ (or) } 42$$

Hence, option D is the correct answer.

Question 53

The marked price is 10% higher than the cost price. A discount of 10% is given on the marked price. In this kind of sale, the seller

- A loses 1.5%
- B bears no loss, makes no gain
- C gains 1%
- D loses 1%

Answer: D

Explanation:

Let cost price = 100

If MRP is 10% higher than cost price then, $MRP = 110$

If a discount of 10% is given then selling price would be,

$$S.P = 90\% \text{ of } 110 \text{ (or) } 99$$

The seller loses 1% in the sale. Hence,

option D is the correct answer.

Question 54

In a certain examination, the number of those who passed was 4 times the number of those who failed. If there had been 35 fewer candidates and 9 more had failed, the ratio of passed and failed candidates would have been 2:1 the total number of candidates was

- A 135
- B 155
- C 145
- D 150

Answer: B

Explanation:

Let passed students be $4x$ and failed students be x

Total number of students will be $5x$

If there had been 35 fewer candidates and 9 more had failed, the ratio of passed and failed candidates would have been 2:1

Then, total number of students will be $5x - 35$

$$\Rightarrow \frac{(5x-35)-(x+9)}{x+9} = \frac{2}{1}$$

$$\Rightarrow \frac{(4x-44)}{x+9} = \frac{2}{1}$$

$$\Rightarrow 4x - 44 = 2x + 18$$

$$\Rightarrow 2x = 62 \text{ (or) } x = 31$$

Total number of students = $5(31) = 155$

Hence, option B is the correct answer.

Question 55

If an article is sold at a gain of 6% instead of at a loss of 6%, then the seller gets 6 more. The cost price of the article is

- A 106
- B 50
- C 94
- D 100

Answer: B

Explanation:

Let cost price be x

As per the given question, equation can be written as

$$(106\% - 94\%) \text{ of } x = 6$$

$$12\% \text{ of } x = 6$$

$$x = 50$$

Hence, option B is the correct answer.

Question 56

The selling price of 20 articles is equal to the cost price of 22 articles. The gain percentage is

- A 12
- B 9

C 10

D 11

Answer: C

Explanation:

Let cost price of 1 article = 1 rupee

Then, cost price of 20 articles = 20 rupees

Given, selling price of 20 articles = Cost price of 22 articles (or) 22 rupees

$$\begin{aligned}\therefore \text{Profit percentage} &= \frac{\text{selling price} - \text{cost price}}{\text{cost price}} \times 100 \% \\ &= \frac{22 - 20}{20} \times 100 \% \text{ (or) } 20 \% \\ &= 10 \%\end{aligned}$$

Hence, option C is the correct answer.

Question 57

A man gains 10% by selling an article for a certain price. If he sells it at double the price, the profit made is

A 120%

B 20%

C 40%

D 100%

Answer: A

Explanation:

Let cost price be 100

Then, selling price will be 110 as profit is 10%

If he sells it at double the price then selling price would be $110 \times 2 = 220$

$$\begin{aligned}\text{Profit percentage} &= \frac{(220 - 100)}{100} \times 100 \\ &= \frac{120}{100} \times 100 \\ &= 120\%\end{aligned}$$

Hence, option A is the correct answer.

Question 58

A number increased by $37\frac{1}{2}\%$ and the increment is 33. The number is

A 27

B 22

C 24

D 25

Answer: C

Explanation:

As per the given question equation can be written as,

$$x + (37\frac{1}{2}\%)x = 33$$

$$x + (\frac{75}{200})x = 33$$

$$x + (\frac{3}{8})x = 33$$

$$11x = (8)(33)$$

$$x = 24$$

Hence, option C is the correct answer.

Question 59

The average of 5 numbers is 20 and 4 of the numbers are 10, 15, 20 and 25. If the numbers are arranged in ascending order, then the average of the last three is

A 25

B 18.75

C 24

D 22.33

Answer: A

Explanation:

Let the 5th number be x

Given numbers are 10, 15, 20, 25 and

Average of five numbers = 20

$$\therefore \frac{10+15+20+25+x}{5} = 20$$

$$70 + x = 100 \text{ (or) } x = 30$$

Arranging the numbers in ascending order - 10, 15, 20, 25, 30

$$\text{Average of last three numbers} = \frac{20+25+30}{3}$$

$$= 3 \text{ (or) } 25$$

Hence, option A is the correct answer.

Question 60

60 kgs of a certain variety of rice at 32 per kg is mixed with 48 kgs of another variety of rice and the mixture is sold at the average price of 28 per kg. If there be no profit or loss due to the new sale price, then the price of the second variety of rice is

A 25.60/kg

B 25/kg

C 23/kg

D 30/kg

Answer: C

Explanation:

Price of 60 kgs of certain variety of rice at 32 per kg = (60)(32)

Price of 48 kgs of another variety of rice at x per kg = 48x

As there is no profit or loss,

$$(60)(32) + 48x = (108)(28)$$

Divide by '48' on both sides

$$40 + x = 63$$

$$x = 23$$

Hence, option C is the correct answer.

Question 61

Three pipes A, B and C fill a tank in 30 minutes, 20 minutes and 10 minutes respectively. When the tank is empty, all the three pipes are opened. If A, B and C discharge chemical solutions P, Q and R respectively, the part of solution R in the liquid in the tank after 3 minutes is

A 8/11

B 5/11

C 6/11

D 7/11

Answer: C

Explanation:

Work done by pipe A to fill the tank in 1 minute = $\frac{1}{30}$

Similarly, work done by pipe B and C to fill the tank in 1 minute = $\frac{1}{20}$ and $\frac{1}{10}$ respectively

Work done by all three pipes together in 1 minute = $\frac{1}{30} + \frac{1}{20} + \frac{1}{10} = \frac{11}{60}$

Work done by all three pipes in 3 minutes = $\frac{11}{60} \times 3$ (or) $\frac{11}{20}$

Part of chemical solution R discharged by C in 3 minutes = $\frac{1}{10} \times 3$ (or) $\frac{3}{10}$

Part of chemical solution R discharged in the liquid in 3 minutes = $\frac{3}{10} / \frac{11}{20} = \frac{6}{11}$

Hence, option C is the correct answer.

Question 62

A, B and C can do a piece of work in 20, 24 and 30 days respectively. They undertook to do the piece of work for 5,400. They begin the work together, but B left 2 days before the completion of work and C left 5 days before the completion of work. The share of A from the assured money is

A 2,700

B 540

C 1,800

D 600

Answer: A

Explanation:

Given A, B and C can do a piece of work in 20, 24 and 30 days respectively

Let the work be completed in x days

$$\Rightarrow 20 + \frac{x-2}{24} + 30 = 1$$

$$\frac{6x+5(x-2)+4(x-5)}{120} = 1$$

$$\frac{6x+5x-10+4x-20}{120} = 1$$

$$\Rightarrow 6x + 5x + 4x = 120 + 30$$

$$\Rightarrow 15x = 150 \Rightarrow x = 10$$

Work done by A,

$$10 \times 270 = 2700$$

Hence, option A is the correct answer.

Question 63

The simplified value of

$$\frac{\sqrt{112}}{\sqrt{196}} \times \frac{\sqrt{576}}{12} \times \frac{\sqrt{256}}{8} \text{ is}$$

A 12

B 8

C 16

D 32

Answer: D

Explanation:

Given equation,

$$\frac{\sqrt{112}}{\sqrt{196}} \times \frac{\sqrt{576}}{12} \times \frac{\sqrt{256}}{8}$$

$$\frac{112}{14} \times \frac{24}{12} \times \frac{16}{8}$$

$$8 \times 2 \times 2$$

$$32$$

Hence, option D is the correct answer.

Question 64

The value of $\sqrt[6]{0.000729}$ is

A 0.027

B 0.3

C 0.03

D 0.09

Answer: B

Explanation:

Given equation can be written as,

$$\sqrt[6]{729/1000000}$$

$$\sqrt[6]{3^6/10^6}$$

$$\frac{3}{10} = 0.3$$

Hence, option B is the correct answer.

Question 65

The cost price of a book is 300. The shopkeeper wants to gain 20% after allowing a discount of 10% on the marked price. Then the marked price of the book must be

- A 360
- B 336
- C 400
- D 396

Answer: C

Explanation:

Cost price of the book = 300

Shop keeper wants to gain 20% i.e s.p = 360

Selling price should be 360 after giving a discount of 10%,

$$90\% \text{ of MRP} = 360$$

$$\text{MRP} = 400$$

Hence, option C is the correct answer.

Question 66

The printed price of a book is 60. But the seller allows successive discounts of 20% and 30%. The net sale price is subject to a sales tax of 5%, the net sale price is

- A 36.28
- B 33.60
- C 36.60
- D 35.28

Answer: D

Explanation:

After the discount the price of book will be,

$$70\% \text{ of } 80\% \text{ of } 60 = 0.7 \times 0.8 \times 60 \text{ (or) } 33.6$$

After the sales tax of 5% the price of book will be,

$$105\% \text{ of } 33.6 = 35.28$$

Hence, option D is the correct answer.

Question 67

Weight of a solid metal sphere of radius 4 cm is 4 kg the weight of a hollow sphere made with same metal whose outer diameter is 16 cm and inner diameter is 12 cm is

- A 20.5 kg
- B 15.5 kg

C 16.5 kg

D 18.5 kg

Answer: D

Explanation:

Volume of solid sphere with radius 4 cm is,

$$= \frac{4}{3} \pi (4)^3 \text{ cm}^3$$

Volume of hollow sphere with outer diameter 16 ($r = 8$) and inner diameter 12 ($r = 6$) is,

$$= \frac{4}{3} \pi (8^3 - 6^3) \text{ cm}^3$$

$$= \frac{4(512 - 216)}{3}$$

$$= \frac{296}{3}$$

$$= 18.5$$

Hence, option D is the correct answer.

Question 68

The radii of a sphere and a right circular cylinder are equal and their curved surface areas are also equal. The ratio of their volumes is

A 3:4

B 2:3

C 3:2

D 4:3

Answer: B

Explanation:

Curved surface area of sphere = $4\pi r^2$

Curved surface area of a right circular cylinder = $2\pi r h$

As per the given question these two are equal,

$$4\pi r^2 = 2\pi r h$$

$$h = 2r \dots \dots (1)$$

Required ratio,

$$\frac{4}{3} \pi r^3 : \pi r^2 h$$

$$4r : 3h$$

Substitute (1) in the above equation

$$4r : 3(2r) = 2:3$$

Hence, option B is the correct answer.

Question 69

A man covers a certain distance on scooter had he moved 3 km/hr faster he would have taken 40 minutes less. If had moved 2 km/hr slower, he would have taken 40 minutes more. The distance in km is

A 42.5

B 36

C 37.5

D 40

Answer: D

Explanation:

If he move 3 km/hr faster he would have taken 40 minutes less,

$$\frac{D}{S-3} - \frac{D}{S} = \frac{40}{60} \dots\dots\dots(1)$$

If he move 2 km/hr slower, he would have taken 40 minutes more,

$$\frac{D}{S-2} - \frac{D}{S} = \frac{40}{60} \dots\dots\dots(2)$$

After solving both the equations we get

$$S = 12 \text{ kmph}$$

$$D = 40 \text{ km}$$

Hence, option D is the correct answer.

Question 70

A sum of money amounts to 2,240 at 4% per annum simple interest in 3 years the interest on the same sum for 6 months at $3\frac{1}{2}\%$ per annum

A 30

B 50

C 35

D 150

Answer: C

Explanation:

Given, a sum of money amounts to 2,240 at 4% per annum simple interest in 3 years. Then

$$\frac{3 \times 4 \times P}{100} = 2240 - P$$
$$3 \times P = 25(2240 - P)$$
$$28P = 25 \times 2240$$
$$P = 2000$$

Interest received on 2000 in 6 months at $3\frac{1}{2}\%$ per annum is

$$S.I = \frac{2000 \times 7}{2 \times 2 \times 100}$$
$$S.I = 35$$

Hence, option C is the correct answer.

Question 71

A's salary is 20% less than B's salary. Then B's salary is more than A's salary by

A 20%

B 25%

C 33.33%

D 30%

Answer: B

Explanation:

Let B's salary be Rs. $100x$.

Then, A's salary = $(100-20)\%$ of $100x$ = Rs. $80x$

$$100x - 80x = 20x$$

Hence, Required percentage = $\frac{20x}{80x} \times 100 = 25\%$

Question 72

A man walking with $\frac{3}{4}$ of his usual speed, reaches office 20 minutes late. His usual time is

A 50 minutes

B 80 minutes

C 70 minutes

D 60 minutes

Answer: D

Explanation:

We know, $s_1 t_1 = s_2 t_2$

$$s_1 t_1 = \left(\frac{3}{4}\right) s_1 (t_1 + 20)$$

$$t_1 = \left(\frac{3}{4}\right) (t_1 + 20)$$

$$4t_1 = (3t_1 + 60)$$

$$t_1 = 60 \text{ minutes}$$

Hence, option D is the correct answer.

Question 73

The amount proposed on Agriculture is more than that on /industries and minerals by

A 7.5%

B 10%

C 12%

D 12.5%

Answer: E

Question 74

The amount in crore rupees proposed on irrigation and power is less than that on industries and minerals by

A 3000

B 3500

C 2000

D 2500

Answer: E

Question 75

A sum of 8,448 is to be divided between A and B who are respectively 18 and 19 years old, in such a way that if their shares be invested at 6.25% per annum compound interest they will receive equal amounts on attaining the age of 21 years the present share of A is

- A 4,225
- B 4,352
- C 4,096
- D 4,000

Answer: C

Explanation:

Let share of A is 'x' and that of B is (8448 - x)

Amount received by A and B is same. Hence, equation can be written as

$$x\left(1 + \frac{6.25}{100}\right)^3 = (8448 - x)\left(1 + \frac{6.25}{100}\right)^2$$

$$x + 100x = 8448 - x$$

$$100x + 6.25x = 844800 - 100x$$

$$206x = 844800$$

$$x = 4096$$

Hence, option C is the correct answer.

General Awareness

Instructions

For the following questions answer them individually

Question 76

Cosmetic powder is prepared from

- A Asbestos
- B Talc
- C Gypsum
- D Serpentine

Answer: B

Question 77

In which state are lions found in large numbers ?

- A Gujarat

- B Tamil nadu
- C Assam
- D Madhya pradesh

Answer: A

Question 78

Rabies is a

- A Helminthic disease
- B Viral disease
- C Bacterial disease
- D Protozoan disease

Answer: B

Question 79

Tuberculosis is transmitted through

- A Droplet transmission
- B Blood transfusion
- C Contaminated water
- D Sexual contact

Answer: A

Question 80

Antibodies are mainly synthesized from

- A Megakaryocyte
- B Monocyte
- C Lymphocyte
- D Histiocyte

Answer: C

Question 81

Which of the following is a parthenocarpic fruit ?

- A Banana
- B Apple
- C Mulberry

D Strawberry

Answer: A

Question 82

Viruses are

A Cellular

B Acellular

C Unicellular

D Multicellular

Answer: B

Question 83

The quantity 'weight' is measured by

A Beam balance

B Common balance

C Spring balance

D Balancewheel

Answer: C

Question 84

Which one of the following agency markets steel for the public sector plants ?

A HNCC

B HAIL

C SAIL

D Tata Steel

Answer: C

Question 85

Jharia coal field is situated in district of jharkhand

A Ranchi

B Dhanbad

C Hazaribagh

D Chaibasa

Answer: B

Question 86

The principle due to which circular patches of light is seen under a tree during day time is similar to that of image formation by a

- A Concave lens
- B Pin-hole
- C Photographic camera
- D Convex lens

Answer: B

Question 87

A browser is a software

- A To find out computer in a LAN
- B To log into a computer in a LAN
- C To search for web pages in internet
- D None of theabove

Answer: C

Question 88

In MS-Word replace option comes under the _____ menu

- A View
- B File
- C Insert
- D Edit

Answer: D

Question 89

CPU refers to

- A Central processing unit
- B Control program unit
- C Central program unit
- D Control program usage

Answer: A

Question 90

The unit of radioactivity is

- A Angstrom
- B Candela
- C Fermi
- D Curie

Answer: D

Question 91

The gas used for artificial ripening of green fruit is

- A Acetylene
- B Ethylene
- C Ethane
- D Carbon dioxide

Answer: B

Question 92

A compass needle cannot be used to detect?

- A Magnetic north-south direction
- B Polarity of a magnet
- C Strength of a magnet
- D Direction of magnetic field

Answer: C

Question 93

In which medium, velocity of sound is maximum?

- A Metals
- B Air
- C Water
- D Polymer

Answer: A

Question 94

Decibel is used to measure the intensity of



- A Magnetic field
- B Sound
- C Light
- D Heat

Answer: B

Question 95

Asiatic lion is now

- A Critically endangered
- B Endangered
- C Extinct in wild
- D Vulnerable

Answer: B

Question 96

The natural environment refers to

- A The living organisms and non-living objects or factors in an area undisturbed by human activity
- B The atmosphere in a forest
- C The plants and animals in a forest
- D The atmosphere of an area-a forest, lake or an ocean

Answer: A

Question 97

Too much consumption of tea or coffee can result in deficiency of

- A Vitamin B12
- B Calcium
- C Vitamin C
- D Albumin

Answer: B

Question 98

Which one of the following is an air-to-air missile ?



- A Astra
- B Prithvi
- C Agni
- D Akash

Answer: A

Explanation:

It is the first air-to-air missile developed by Defense Research and Development Organization (DRDO).

Question 99

Flight-recorder is technically called

- A Altitude meter
- B Dark box
- C Blind box
- D Black box

Answer: D

Question 100

Glass is

- A Supercooled liquid
- B Crystalline solid
- C Liquid crystal
- D none of these

Answer: A