

SSC CPO 14th-March-2019-Shift-2

Reasoning

Instructions

For the following questions answer them individually

Question 1

Select the number pair that is analogous to the given number pair.

216 : 343

- A 8 : 27
- B 27 : 125
- C 216 : 727
- D 1009 : 1331

Answer: A

Question 2

Three of the following four numbers are alike in a certain way and one is different. Find the odd one out.

- A 594
- B 693
- C 462
- D 573

Answer: D

Question 3

Three of the following four words are alike in a certain way and one is different. Find the odd one out.

- A Victory
- B Success
- C Setback
- D Triumph

Answer: C

Question 4

Select the correct alternative to indicate the arrangement of the following words in a logical and meaningful order.

- 1.State
- 2.Street
- 3.House number
- 4.City
- 5.Country

- A 3, 4, 2, 1, 5
- B 3, 2, 4, 1, 5

C 2, 3, 4, 5, 1

D 1, 5, 4, 3, 2

Answer: B

Question 5

Which number will come next in the following series?

136, 137, 135, 138, 134, 139,

A 133

B 136

C 139

D 138

Answer: A

Question 6

Select the word-pair in which the two words are related in the same way as are the two words in the following word-pair:

Army : General

A College : Student

B Hospital : Patient

C Worker : Factory

D Company : Director

Answer: D

Question 7

Choose the mirror image of the given word if the mirror is placed to the right of the word.

E 8t4g9C

A C 9g4t8E

B E 8t4g9C

C E8t4g9C

D C 9g4t8E

Answer: D

Question 8

Select the word—pair in which the two words are related in the same way as are the two words in the following word-pair.

Smile : Laugh

- A Run : Stand
- B Sad : Happy
- C Blend : Mixture
- D Speak : Shout

Answer: D

Explanation:

As smiling is gentler version of laughing, speaking is gentler version of shouting.

Question 9

Select the option that is related to the third term in the same way as the second term is related to the first term.

24 : 102 :: 16 :

- A 346
- B 68
- C 60
- D 64

Answer: B

Explanation:

$$\frac{24}{102} = \frac{16}{x}$$

$$x = 68$$

Question 10

Three of the following four letter-clusters are alike in a certain way and one is different. Find the odd one out.

- A GHTR
- B CKXP
- C AEZV
- D FJUQ

Answer: A

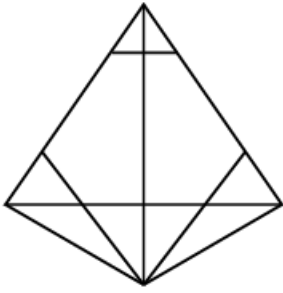
Explanation:

All options except A are in such a way that the difference between 1st and the 2nd term in the alphabetic order is same as the difference between 3rd and 4th term (Please elaborate taking their positions w.r.t the english alphabetical series, but in option A there is no such pattern.

Therefore, option A is the odd one out of the 4 options.

Question 11

How many triangles are there in the following figure?



- A 30
- B 24
- C 28
- D 26

Answer: B

Explanation:

In this type of questions, only way is to calculate manually the number of triangles.

Tips:-

First count single triangles, then count the big triangles which have two triangles in it, the big triangles with three triangles in it and so on.

Represent it with a,b,c vertices for each triangle and then count. Otherwise there are formulae to calculate the no of triangles.

Question 12

Select the option that is most like the given set.

(3, 15, 123)

- A (8, 63, 998)
- B (5, 36, 341)
- C (2, 26, 125)
- D (4, 24, 214)

Answer: D

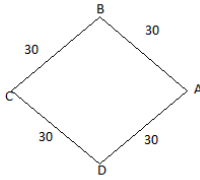
Question 13

Abhijeet leaves his house and moves 30 m in the North-West direction. Then, he goes 30 m in the South-West direction. Next, he moves 30 m in the South-East direction. Then, he moves 30 m in the North-East direction. How far away is he from his house?

- A 10 m
- B 20 m
- C 30 m
- D 0 m

Answer: D

Explanation:



Point A is the home of abhijeet, he moves 30 m in north west direction from point A and reaches point B, from point B he again moves 30 m in south west direction to reach point C, then he moves 30 m in south-east direction to reach point D, and finally he moves 30 m in north-east direction to return back to point A.

therefore the distance between abhijeet's home to the end point is 0.

This is a direct explanation. Take step by step. Like he moved 30m north west. So represent it in the figure 1.

Then 30m south west. Represent it in figure 2 combining figure 1 and likewise.

Question 14

Three of the following four pairs of numbers are alike in a certain way and one is different. Find the odd one out.

- A 136 - 153
- B 152 - 171
- C 63 - 72
- D 104 - 117

Answer: C

Explanation:

Let us examine the pattern in difference between the stated numbers.

$153 - 136 = 17 \rightarrow$ Prime number

$171 - 152 = 19 \rightarrow$ Prime number

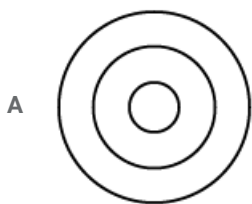
$72 - 63 = 9 \rightarrow$ Non-prime number

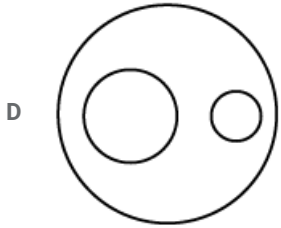
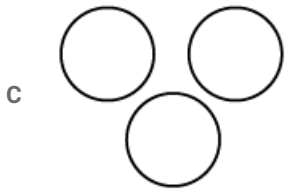
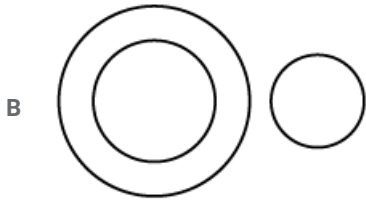
$117 - 104 = 13 \rightarrow$ Prime number

Hence, the pair 72-63 is the odd pair among the given 4 pair of numbers.

Question 15

Choose the Venn diagram from the given options that best represents the relationship amongst the following classes: Indonesia, Asia, Bangladesh





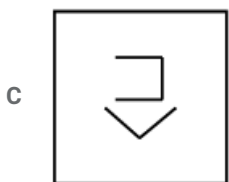
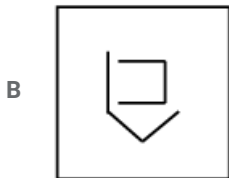
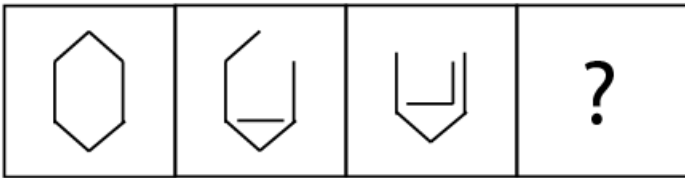
Answer: D

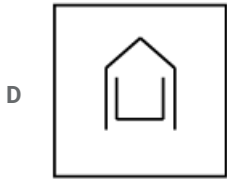
Explanation:

As Indonesia and Bangladesh both belongs to Asia and these two countries don't have any intersection, option D has picturised the mentioned information in the most logical way.

Question 16

Select the figure that will come next in the following series.





Answer: B

Explanation:

The pattern followed in this question is as follows

there are two figure, outer one that is initially a hexagon, and an inner one which is growing it's edges with each step.

with each step, one edge of the hexagon is getting removed and one edge is getting added to the inner figure summing up the total number of edges in the complete diagram to be same.

step 1

Outer figure - 6 edges, Inner figure - 0 edges

step 2

Outer figure - 5 edges, Inner figure- 1

step 3

outer figure- 4, inner - 2

therefore in step 4, the outer figure should be having 3 edges and inner figure 3 edges.

the only option with the required conditions is option B.

hence, the correct answer is option B.

Question 17

Select the option that is related to the third term in the same way as the second term is related to the first term.

MUSCLE : SUMLEC :: OUTPUT :

A TUOUTP

B UTOPUT

C TOUTUP

D PUTOUT

E PTOUUT

Answer: A

Explanation:

The pattern being followed here is-

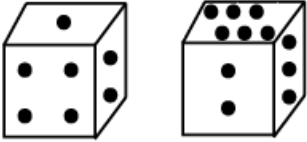
The sequence of first three words is getting reversed, and the latter 3 words are following a cyclic pattern starting from 2nd out of 3 words. i.e. 123 is getting 231.

Following this pattern the 4th word would be TUOUTP.

Hence option A is the right answer.

Question 18

Two positions of a dice are shown below. When there are five dots at the top, how many dots will be at the bottom?



- A 2
- B 6
- C 1
- D 3

Answer: A

Explanation:

2 is common in both the arrangements given to us,

every face of a dice is surrounded by 4 other sides, the only side that does not surround a face is the one opposite to it.

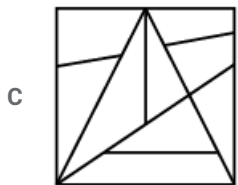
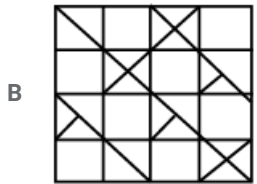
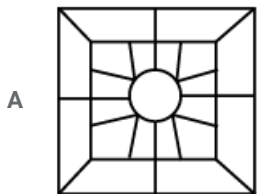
the faces surrounding 2 are - 1,6,4,3

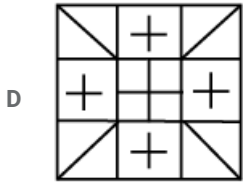
so clearly 5 is opposite to 2 and hence when 5 dots are at the top, 2 will be in the bottom.

therefore answer is option A- 2

Question 19

Select the option in which the given figure is embedded.





Answer: B

Explanation:

On closely examining all 4 options we can observe that the only option in which the given shape is embedded is option B.

Please show the figure of the embedded one in the main figure here.

Question 20

'Mass' is related to 'Kilogram' in the same way as 'Force' is related to:

- A Newton
- B Pascal
- C Joule
- D Second

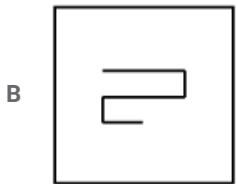
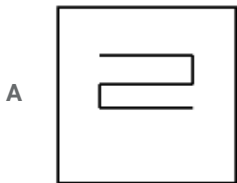
Answer: A

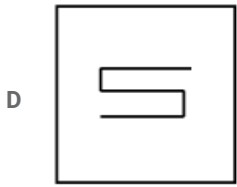
Explanation:

Newton is the unit of Force and Kilograms is the unit of Mass

Question 21

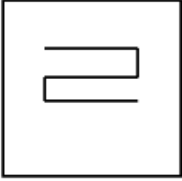
Select the figure that will come next in the following series.





Answer: A

Explanation:



if we closely examine the pattern being followed in the question, we can see that first figure is having zigzag pattern initiating from upwards, in second it's starting from rightwards direction, in third figure it's initiating from downwards in 4th figure it should be starting leftwards

Question 22

Select the option that is most like the given set.

(23, 136, 45)

A (29, 78, 11)

B (17, 50, 33)

C (31, 126, 37)

D (19, 96, 29)

Answer: D

Explanation:

Comparing the corresponding numbers of each option with the given set we can see that the difference between them is uniformly following a pattern in option D where the difference is 4,40 and 16, all three being a multiple of 4 are forming a pattern while any such pattern can not be observed in the other options.

Hence, option D is the correct answer.

Logic is wrong

Question 23

If A= 4 and C=6, then how will you code POWER?

A 191825821

B 191826821

C 181726821

D 181725720

Answer: B

Explanation:

Given - A= 4, C=6.

We can observe the pattern that it is coded in alphabetical order +3 . i.e the first alphabet of English language is coded as 4, then 5, 6 and so on.

going by this way we can clearly see that POWER will be coded as -

P - 19

O - 18

W - 26

E - 8

R - 21

After combining these codes we get the required coded word.

191826821

Question 24

Which two signs should be interchanged to make the given equation correct?

$$20 + 5 \times 3 \div 3 - 1 = 14$$

A \div and $+$

B \div and \times

C \times and $-$

D \times and $+$

Answer: A

Explanation:

Going by the options,

D) interchanging \times and $+$

$$20 \times 5 + 3 \div 3 - 1 \neq 14$$

c) \times and $-$

$$20 + 5 - 3 \div 3 \times 1 \neq 14$$

B) \div and \times

$$20 + 5 \div 3 \times 3 - 1 \neq 14$$

A) \div and $+$

$$20 \div 5 \times 3 + 3 - 1 = 14$$

(Explanation is required)

Hence option A is the correct answer

Question 25

Which number will come next in the following series?

1, 2, 5, ..., 677

A 26

B 25

C 95

D 11

Answer: A

Explanation:

Pattern being followed here is $n^2 + 1$

Like $1^2 + 1, 2^2 + 1, 5^2 + 1, \dots$

Hence 1, 2, 5, 26,

(Same explanation more detailed required)

Question 26

'Lethargy' is related to 'Alertness' in the same way as 'Hostility' is related to:

- A Violence
- B Pride
- C Cordiality
- D Antagonism

Answer: C

Explanation:

Relationship between lethargy and alertness -> Antonyms

i.e. the relationship required here is antonyms.

So clearly, the only option satisfying this relationship with hostility is option C cordiality.

Question 27

Consider the following statements to be true even if they seem to be at variance from commonly known facts and decide which of the conclusions logically follows from the statements.

Statements:

All leaders are statesmen.

All statesmen are orators.

Conclusions:

I. All leaders are orators.

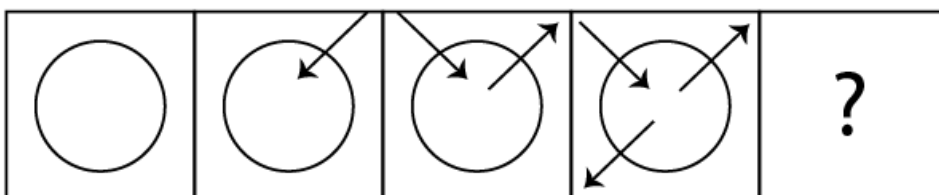
II. All statesmen are leaders.

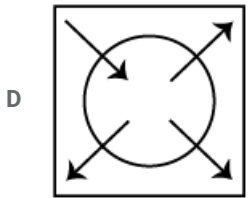
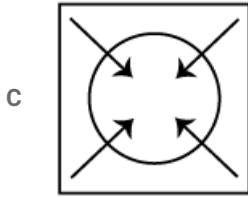
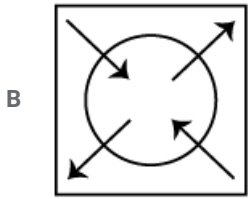
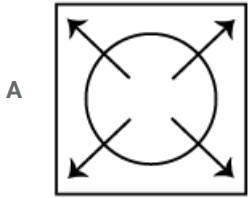
- A Both conclusions I and II follow
- B Neither conclusion I nor II follows
- C Only conclusion I follows
- D Only conclusion II follows

Answer: C

Question 28

Select the figure that will come next in the following figure series.





Answer: B

Question 29

Which letter will replace the question mark (?) in the following series?

C, E, I, O, ?

A W

B A

C X

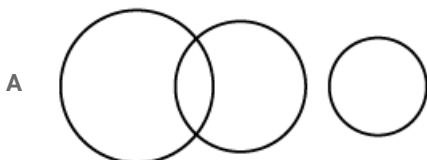
D Z

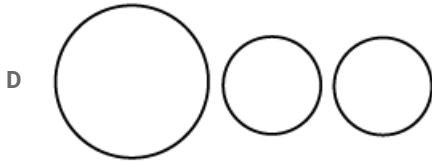
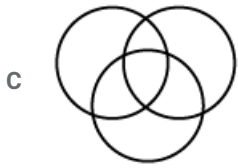
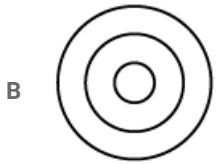
Answer: A

Question 30

Choose the Venn diagram from the given options that best represents the relationship amongst the following classes:

Clerk, Male, Permanent Employee





Answer: C

Question 31

If in a certain language, EXAMPLE is coded as DWZLOKD, how will ELECTION be coded in that language?

A DKEBSHNM

B EKDBSHNM

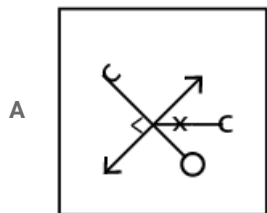
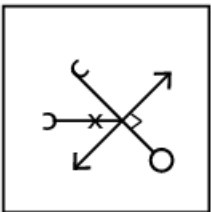
C DKDBSHNM

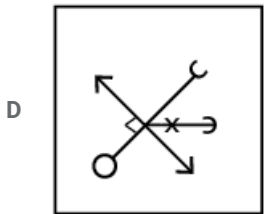
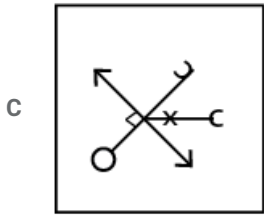
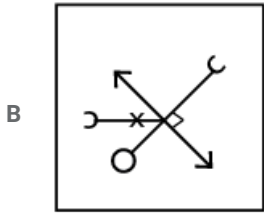
D DKDBSJHM

Answer: C

Question 32

Select the mirror image of the given figure when the mirror is placed vertically to the right of the figure.





Answer: C

Question 33

Select the option that is related to the fourth term in the same way as the first term is related to the second term.

EGJ : JLO :: :TVY

A ORT

B NPS

C OQT

D NPR

Answer: C

Question 34

Select the correct alternative to indicate the arrangement of the following words in a logical and meaningful order.

1. Karnataka
2. Bengaluru
3. Asia
4. India
5. World

A 1, 5, 4, 3, 2

B 3, 4, 2, 1, 5

C 2, 3, 4, 1, 5

D 2, 1, 4, 3, 5

Answer: D

Question 35

Tina is 75 m South-East of Veena. Reena is 75 m South–West of Veena. Tina is to the of Reena.

- A North
- B West
- C South
- D East

Answer: D

Question 36

Select the number pair that is analogous to the given number pair.

13 : 338

- A 15 : 225
- B 9 : 729
- C 8 : 128
- D 5 : 52

Answer: C

Question 37

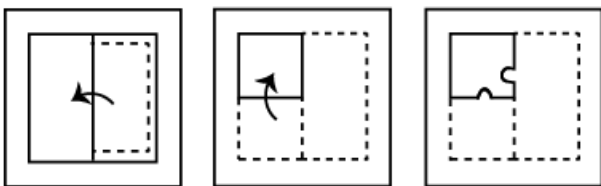
In a certain code language 'DEAR' is written as '7465' and 'LIFE' is written as '8394'. How will 'IDEAL' be written in the same code language?

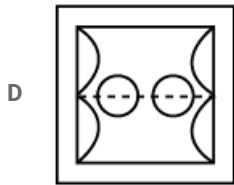
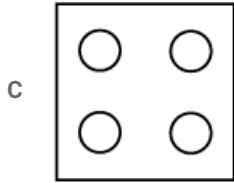
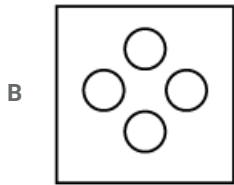
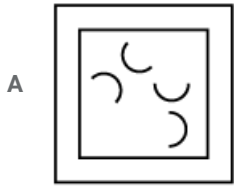
- A 37684
- B 37468
- C 73648
- D 84673

Answer: B

Question 38

A piece of paper is folded and cut as shown below. How will it appear when unfolded?





Answer: B

Question 39

If @ denotes '÷', # denotes '×', \$ denotes '+' and % denotes '-', then what will be the value of the following expression?

$$18 \# 2 @ 2 \$ 18 \% 18$$

A 0

B 36

C 18

D 2

Answer: C

Question 40

If in a certain code. EARTH is written as FZSSI, which word would be coded as XZUDS?

A WAVES

B WAVER

C WATER

D YXVET

Answer: C

Question 41

Three of the following four pairs of words are alike in a certain way and one is different. Find the odd one out.

- A Snake - Lizard
- B Frog - Crocodile
- C Parrot - Eagle
- D Bear - Deer

Answer: B

Question 42

Three of the following four numbers are alike in a certain way and one is different. Find the odd one out.

- A 104
- B 28
- C 32
- D 48

Answer: B

Question 43

Three of the following four letter-clusters are alike in a certain way and one is different. Find the odd one out.

- A HKNQT
- B QTWZC
- C BEHKN
- D TWYBC

Answer: D

Question 44

Which number in the given series is incorrect?

3, 7, 7, 11, 9, 13, 13, 17, 15, 23

- A 23
- B 9
- C 13
- D 17

Answer: A

Question 45

Which letter—cluster will replace the question mark (?) in the following series?
DEY, FFW, IGT, KHR, NIO, ?

- A QJN
- B PJM
- C QJM
- D PJN

Answer: B

Explanation:

$$DEY = 4 + 5 + 25 = 34$$

$$FFW = 6 + 6 + 23 = 35$$

$$IGT = 9 + 7 + 20 = 36$$

$$KHR = 11 + 8 + 18 = 37$$

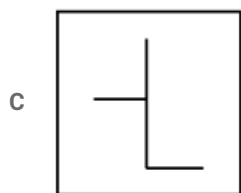
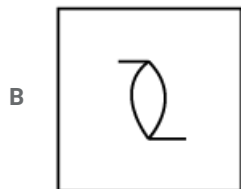
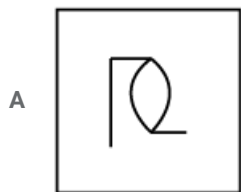
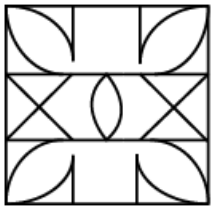
$$NIO = 14 + 9 + 15 = 38$$

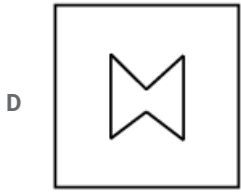
According to sequence, next term will be

$$PJM = 16 + 10 + 13 = 39$$

Question 46

Select the figure which is embedded in the given figure.





Answer: B

Question 47

Three of the following four pairs of numbers are alike in a certain way and one is different. Find the odd one out.

A 7, 12

B 44, 2

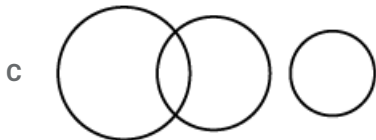
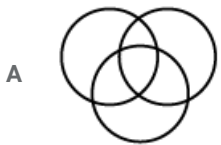
C 11, 8

D 22, 4

Answer: A

Question 48

Choose the Venn diagram from the given options that best represents the relationship amongst the following classes:
Graduate, Painter, Teacher



Answer: A

Question 49

Consider the following statements to be true even if they seem to be at variance from commonly known facts and decide which of the conclusions logically follows from the statements.

Statements:

A. Some clocks are Instruments.

B. Some Instruments are hands.

Conclusions:

I. Some hands are clocks.

II. No hand is a clock.

- A Only conclusion II follows
- B Neither conclusion I nor II follows
- C Only conclusion I follows
- D Either conclusion I or II follows

Answer: D

Question 50

If \div means '+', \times means ' \div ', $+$ means '-' and $-$ means ' \times ', then what is the value of the following expression?

$$16 - 4 + 12 \times 3 \div 5 = ?$$

- A 67
- B 53
- C 59
- D 65

Answer: D

Explanation:

$$16 - 4 + 12 \times 3 \div 5$$

According to question,

$$16 \times 4 - 12 \div 3 + 5$$

By using BODMAS, we get,

$$16 \times 4 - 4 + 5$$

$$64 + 1$$

$$65$$

General knowledge

Instructions

For the following questions answer them individually

Question 51

The Union government has approved Project of the Income Tax Department to enhance the efficiency of income tax administration system in the country.

- A Enhanced E-filing and Centralised Processing Center 2.0
- B Innovative E-filing and Centralised Processing Center 2.0
- C Interdisciplinary E-filing and Centralised Processing Center 2.0
- D Integrated E-filing and Centralised Processing Center 2.0

Answer: D

Question 52

What is Vedic name of River Ravi?

- A Askini
- B Kalindi
- C Parushini
- D Shutudri

Answer: C

Question 53

Hunar Haat exhibitions, aimed at plays an important role in national and international branding of the heritage of master artisans in India.

- A "Preserve Heritage"
- B "Development with Dignity"
- C "Grow with art"
- D "Work with mission"

Answer: B

Question 54

Who discovered electromagnetism?

- A James Clerk
- B Hans Christian Oersted
- C Michael Faraday
- D Andre Ampere

Answer: B

Question 55

Oxalic acid is found in which of the following?

- A Amla
- B Lemon
- C Tamarind
- D Spinach

Answer: D

Question 56

Who has written the book "Capital and Growth"

- A Kenneth Arrow
- B Adam Smith
- C John Hicks
- D A. R. Rodon

Answer: C

Question 57

In January 2019, researchers from revealed that they had recreated space fuel by simulating interstellar conditions in the laboratory.

- A Indian Institute of Technology-Kanpur (IIT-K)
- B Indian Institute of Technology-Madras (IIT-M)
- C Indian Institute of Technology-Bombay (IIT-B)
- D Indian Institute of Technology-Delhi (IIT-D)

Answer: B

Question 58

Who among the following was NOT a recipient of the Arjuna Award 2018?

- A Nelakurthi Sikki Reddy (Badminton)
- B Satish Kumar (Boxing)
- C Neeraj Chopra (Athletics)
- D Gulpreet Kumari (Hockey)

Answer: D

Question 59

The Pravasi Teerth Darshan Yojana accords first preference to people of Indian origin and from Girmitya countries. Which of the following is NOT one of them?

- A Mauritius
- B Fiji
- C Guyana
- D Austria

Answer: A

Question 60

..... University won the Maulana Abul Kalarn Azad (MAKA) Trophy 2017-18.

- A Guru Nanak Dev University, Amritsar
- B Tamil Nadu Dr. M.G.R. Medical University
- C Ramachandra Deemed Medical University. Chennai
- D University of Hyderabad

Answer: A

Question 61

After his release from jail in 1909, Aurobindo Ghose started two weeklies namely and

- A Karmayogin in English and Dharma in Bengali
- B Anandabazar Patrika in Hindi and Manorama in Malayali
- C Dainik Jagran in Hindi and Manorama in Malayali
- D Dainik Jagran in Hindi and Anandabazar Patrika in also Hindi

Answer: A

Question 62

..... is an epic poem by Asvaghosa. which narrates the life of Buddha from his birth till the time he attained Nirvana.

- A Shishupala Vadha
- B Buddhacharita
- C Kiratarjuniya
- D Arthashastra

Answer: B

Question 63

The Kama Sutra was originally compiled in the 3rd century by the Indian sage who lived in northern India.

- A Valmiki
- B Vatsyayana
- C Kautilya
- D Veda Vyasa

Answer: B

Question 64

S Mirabai Charm and Vn'at Kohli were the recipients of the for spectacular and outstanding performance in the field of sports.

- A Dhyan Chand Award 2018
- B Rajiv Gandhi Khel Ratna Award 2018
- C Maulana Abul Kalam Azad (MAKA) Trophy 2017-18
- D Dronacharya Award 2018

Answer: B

Question 65

Kumbh Mela takes place every third year at one of four places by rotation. Which of the following is NOT one of these places?

- A Allahabad (Prayag)
- B Haridwar
- C Ujjain
- D Pune

Answer: D

Question 66

According to an SBI report named, the government should opt for unconditional cash transfer to farmers to alleviate agrarian distress rather than the Universal Basic Income (UBI) scheme.

- A Ecowrap
- B Ecoloss
- C EcoTransfer
- D Ecocash

Answer: A

Question 67

What was the theme of National Girl Child Day in 2019?

- A Save Girl Child
- B Creating a Healthy and Safe Environment for the Girl Child
- C Sanitation for Girl Child
- D Empowering Girls for a Brighter Tomorrow

Answer: D

Question 68

Mohandas Gandhi was awarded the Kaiser-i-Hind award in 1915 by of Peshurist for his contribution to ambulance services in South Africa.

- A Lord Curzon
- B Lord Hardinge
- C Lord Dalhousie
- D Lord Ripon

Answer: B

Question 69

Which of the following states/union territories does NOT have more than 75% forest cover as of forest report 2017?

- A Mizoram
- B Assam
- C Lakshadweep
- D Andaman and Nicobar Islands

Answer: B

Question 70

..... is the non-enzymatic reaction between reducing sugars such as glucose and proteins, lipids or nucleic acids.

- A Pyruvate oxidation
- B Glycation
- C Phosphorylation
- D Cellular respiration

Answer: B

Question 71

It is not feasible to implement at the national level because the land data is yet to be digitized in several states including Jharkhand, Bihar, Gujarat, and Tamil Nadu.

- A Antyodaya Anna Yojana

- B Sukanya Samriddhi Account
- C Jago Grahak Jago
- D Rythu Bandhu Scheme

Answer: D

Question 72

Tooth enamel is made up of:

- A Calcium Phosphate
- B Calcium Silicate
- C Calcium Carbonate
- D Calcium Sulphate

Answer: A

Question 73

Olfactory indicators show change in:

- A Smell
- B Physical state
- C Color
- D Chemical state

Answer: A

Question 74

The International Day of the Girl Child is observed every year across the world on

- A 15 March
- B 19 December
- C 25 January
- D 11 October

Answer: D

Question 75

Prime Minister Narendra Modi launched the Pravasi Teerth Darshan Yojana. Which of the following is NOT one of its features?

- A People of Indian-origin aged 40 to 70 can avail of the benefits under this scheme.
- B The government will bear all the expenses of the trip including the airfare from the group's country of residence.
- C Those selected would be taken to religious places of all major religions in India.

D Under the scheme, a group of Indian diaspora will be taken on a government-sponsored tour of religious places in India twice a year.

Answer: A

Question 76

National Girl Child Day is celebrated in India on

A 24th January

B 23rd March

C 21st September

D 9th February

Answer: A

Question 77

According to Container Ports Report, is India's only port to be ranked among world's top 30 ports.

A Jawaharlal Nehru Port Trust

B Panambur Port

C Port Blair

D Tuticorin Port

Answer: A

Question 78

As per 'India State of Forest Report (ISFR) 2017', the state of has the largest area covered under permanent forest.

A Punjab

B Mizoram

C Arunachal Pradesh

D Madhya Pradesh

Answer: D

Question 79

As of January 2019, who is the Minister of Electronics and Information Technology (MeitY)?

A Suresh Prabhu

B Ravi Shankar Prasad

C Raj Nath Singh

D DV Sadananda Gowda

Answer: B

Question 80

The total forest and tree cover is of geographical area of the country, according to the findings of ISFR 2017.

A 30.2%

B 21.67%

C 24.39%

D 26.4%

Answer: C

Question 81

Metamorphosis in frogs is controlled by:

A Melatonin

B Adrenalin

C Thyroxine

D Insulin

Answer: C

Question 82

Apart from a medal and a citation, in 2018, the Rajiv Gandhi Khel Ratna awardee received a cash prize of ₹..... while Arjuna, Dronacharya and Dhyan Chand awardees received statuettes, certificates and a cash prize of ₹..... each.

A 7.5 lakh, 5 lakh

B 6 lakh, 2.5 lakh

C 10 lakh, 5 lakh

D 5 lakh, 2.5 lakh

Answer: A

Question 83

Ilbert Bill, which was introduced by, is a controversial measure proposed in 1883.

A Lord Dalhousie

B Lord Hastings

C Lord Curzon

D Lord Ripon

Answer: D

Question 84

The Battle of Plassey was fought on between Siraj ud-Daulah and the British East India Company.

- A 15 September 1765
- B 21 June 1780
- C 25 May 1745
- D 23 June 1757

Answer: D

Question 85

..... is the most abundant molecule in cells, accounting for 70% or more of total cell mass.

- A Water
- B Lipids
- C Nucleic acid
- D Proteins

Answer: A

Question 86

The Indian junior men's skeet team clinched a silver at the IS SF World Championships in in 2018

- A Argentina
- B Hungary
- C South Korea
- D North Korea

Answer: C

Question 87

..... wrote the epic Ramcharitmanas.

- A Vishnu Sharma
- B Valmiki
- C Veda Vyasa
- D Tulsidas

Answer: D

Question 88

Marginal cost is directly equal to its

- A Fixed costs
- B Fixed and variable costs
- C Neither fixed nor variable costs
- D Variable costs

Answer: D

Question 89

According to a study by Dr. Anoop Misra, chairman Fortis C–DOC and his team, even non-obese and lean persons may be prone to

- A Type 1 diabetes
- B Arthritis
- C Thyroid problems
- D Type 2 diabetes

Answer: D

Question 90

Which of the following was NOT one of the fields in which an award was given at the Pradhan Mantri Rashtriya Bal Puraskar 2019?

- A Scholastic
- B Bravery
- C Innovation
- D Science

Answer: D

Question 91

Union Minister for Road Transport & Highways, Shipping Nitin Gadkari inaugurated a 1210-meter span-bridge over the river in Kathua district of Jammu & Kashmir on Jan 2019.

- A Jhelum
- B Chenab
- C Ravi
- D Sutlej

Answer: C

Question 92

According to the 'World Economic Situation and Prospects 2019' report, India's GDP growth is expected to accelerate to % in 2019-20.

- A 7.6
- B 6.5
- C 8.1
- D 7.8

Answer: A

Question 93

Dhyan Chand Award 2018 Recipient for archery is bestowed upon for lifetime contribution to sports development.

- A Chougale Dadu Dattatray
- B Bharat Kumar Chetri
- C Satyadev Prasad
- D Bobby Aloysius

Answer: C

Question 94

The levels of glycated hemoglobin in blood are influenced by many factors. Which of the following is NOT one of them?

- A Anaemia
- B Iron deficiency
- C Pregnancy
- D Loss of memory

Answer: D

Question 95

Aurobindo Ghose was born in Calcutta (now Kolkata) on

- A 29th October 1765
- B 25th September, 1860
- C 15th August, 1972
- D 15th August, 1872

Answer: D

Question 96

The Jallianwala Bagh massacre, also known as the Amritsar massacre, took place on in Jallianwala Bagh, Punjab.

- A 13 April 1919
- B 4 May 1929
- C 17 March 1909
- D 13 August 1867

Answer: A

Question 97

In January 2019, the Government of India assigned as the temporary additional charge of the Finance and Corporate Affairs Ministries in the absence of Finance Minister Arun Jaitley.

- A Vijay Kumar Singh
- B Radha Mohan Singh
- C Piyush Goyal
- D Shripad Naik

Answer: C

Question 98

The first woman Chief Justice of High Court in India was

- A Indu Malhotra
- B Ruma Pal
- C Leila Seth
- D Fatima Bibi

Answer: C

Question 99

Which gas, in its solid state, is known as dry ice?

- A Hydrogen
- B Oxygen
- C Nitrogen
- D Carbon-dioxide

Answer: D

Question 100

Which of the following glands is called the master gland of the human body?

- A Thyroid
- B Pituitary
- C Adrenal
- D Liver

Answer: B

Quant

Instructions

For the following questions answer them individually

Question 101

A and B start walking together from a point. Their steps measure 72 cm and 84 cm respectively. What is the minimum distance they should walk so that each takes exact number of steps?

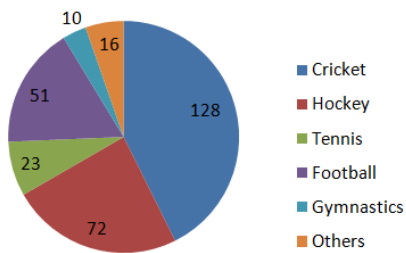
- A 5.04 m
- B 3.54 m
- C 6.3 m
- D 2.7 m

Answer: A

Question 102

The given pie-chart depicts the expenditure incurred in crores towards each sport.

Expense(in crores)



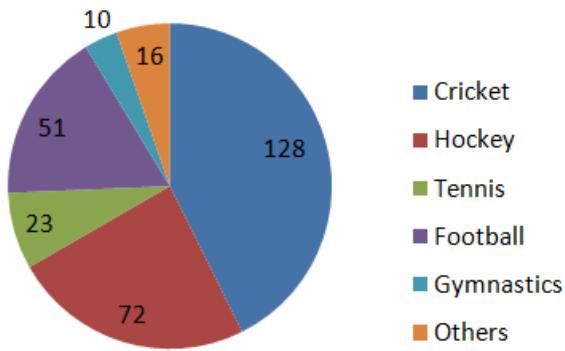
In the given pie-chart, what is the difference between the expenditure incurred on cricket and football?

- A 21
- B 56
- C 49
- D 77

Answer: D

Explanation:

Expense(in crores)



From Fig,

Expenditure on Cricket = 128

Expenditure on football = 51

Difference in Expenditure on Cricket – Expenditure on Football

$$128 - 51 = 77$$

Question 103

A trader marks the cost of a car 24% above its price and allows a discount of 15%. If the discount is ₹ 2,23,200, then the cost price of the car is:

- A ₹ 14,25,000
- B ₹ 12,00,000
- C ₹ 15,80,000
- D ₹ 11,60,000

Answer: B

Question 104

The volume of wood required to make a closed box of thickness 2.5 cm with external dimensions $90\text{cm} \times 75\text{cm} \times 50\text{cm}$ is:

- A 69750 cm^3
- B 49050 cm^3
- C 36170 cm^3
- D 46720 cm^3

Answer: A

Explanation:

Given,

Length, $L = 90\text{cm}$, Breadth, $B = 75\text{cm}$, Height, $H = 50\text{cm}$

Thickness = 2.5cm

Volume of Outer box = $L \times B \times H = 90 \times 75 \times 50$

Volume of Outer box = 337500cm^3

To find the volume of inner box subtract thickness

new Dimensions are

$$L' = 90 - 5 = 85\text{cm} \text{ (2.5cm is subtracted from both sides)}$$

$$B' = 75 - 5 = 70\text{cm}$$

$$H' = 50 - 5 = 45\text{cm}$$

$$\text{Volume of inner box} = L' \times B' \times H' = 85 \times 70 \times 45$$

$$\text{Volume of inner box} = 267750\text{cm}^3$$

$$\text{Volume of wood} = \text{Volume of outer box} - \text{Volume of inner box}$$

$$\text{Volume of wood} = 337500 - 267750 = 69750\text{cm}^3$$

Question 105

If the surface area of a cube is 1944 m^2 , its volume is:

A 4912 m^3

B 1648 m^3

C 2744 m^3

D 5832 m^3

Answer: D

Explanation:

Given,

$$\text{surface area of cube} = 1944\text{m}^2$$

we know that,

$$\text{surface area of cube} = 6a^2$$

$$6a^2 = 1944$$

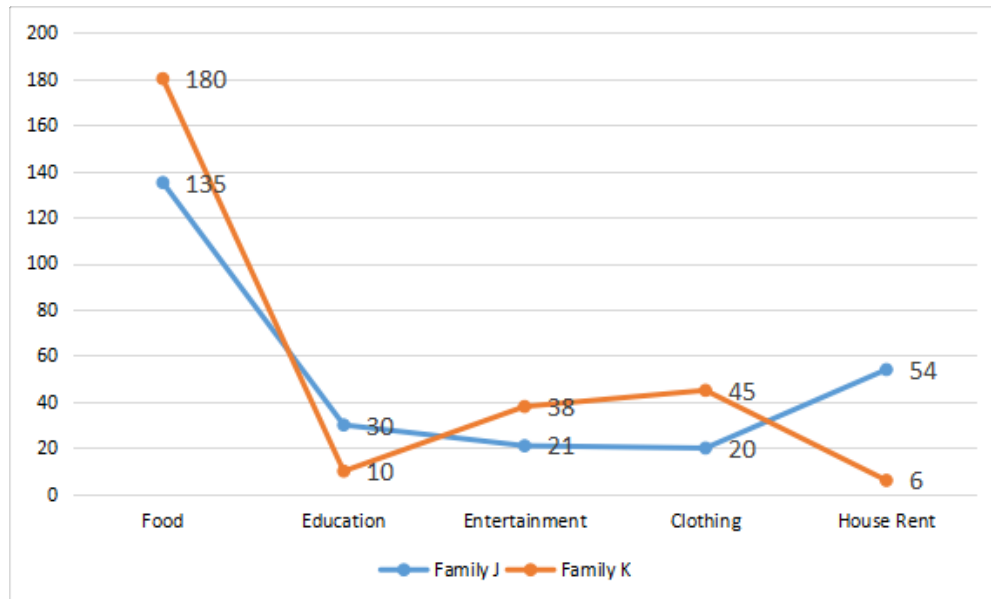
$$a = 18$$

$$\text{Volume of cube} = a^3$$

$$\text{Volume of cube} = 18^3 = 5832\text{m}^3$$

Question 106

The line graph shows the monthly expenditure by two families in hundreds:



In the given line graph, what is the difference in percentage of spending on food between Family J and K?

- A 12.6%
- B 15.2%
- C 13.7%
- D 14.9%

Answer: A

Question 107

The speed of a boat in still water is 6 km/h. If it takes four times as much time as going upstream as in going same distance downstream, the speed of the stream is:

- A 2.5 km/h
- B 3.6 km/h
- C 5 km/h
- D 4.2 km/h

Answer: B

Question 108

Which of the following solids has the highest number of vertices?

- A Triangular Prism
- B Hexagonal pyramid
- C Tetrahedron
- D Cuboid

Answer: D

Explanation:

Vertices of Cuboid = 8

Vertices of Triangular prism = 6

Vertices of Hexagonal pyramid = 7

Vertices of Tetrahedron = 4

Question 109

The number 30744 is divisible by which of the single digit numbers:

- A Only by 2, 3, 6 and 9
- B All numbers except 5 and 7
- C All numbers except 5
- D Only by 2, 3 and 6

Answer: C

Question 110

$(1 + \cot^2 \theta)(1 - \cos^2 \theta)$ is equal to:

- A 0
- B 1
- C Not defined
- D $\frac{1}{2}$

Answer: B

Explanation:

$$(1 + \cot^2 \theta) (1 - \cos^2 \theta)$$

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

$$\left(1 + \frac{\cos^2 \theta}{\sin^2 \theta}\right) (\sin^2 \theta)$$

$$(\sin^2 \theta + \cos^2 \theta)$$

1

Question 111

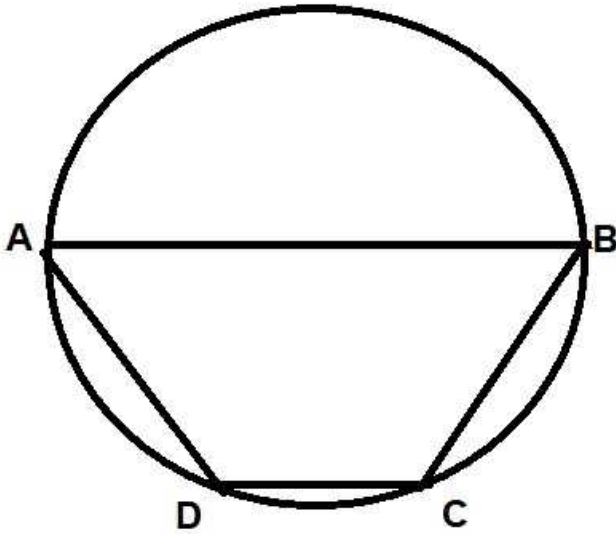
ABCD is a cyclic quadrilateral such that AB is a diameter of the circle circumscribing it and angle $ADC = 130^\circ$. Then angle BAC is equal to:

- A 150°
- B 40°
- C 50°

D 60°

Answer: B

Explanation:



Given,

$$\angle ADC = 130^\circ$$

we know that,

sum of opposite angle of cyclic quadrilateral = 180°

$$\angle ADC + \angle ABC = 180^\circ$$

$$130^\circ + \angle ABC = 180^\circ$$

$$\angle ABC = 50^\circ$$

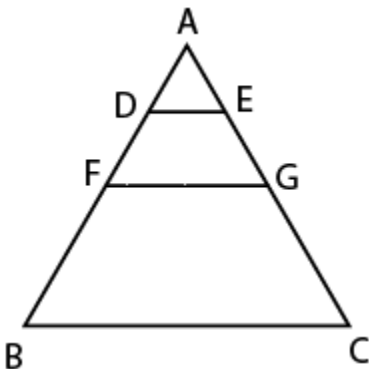
In $\triangle ABC$,

$$\angle ABC = 50^\circ, \angle BCA = 90^\circ \text{ (Angle in semi circle)}$$

$$\angle BAC = 40^\circ$$

Question 112

In the triangle given below, D and E are mid points of AF and AG respectively. F and G are mid points of AB and AC respectively. If $DE = 2.4$ cm. then BC is equal to:



A 4.8 cm

B 3.6 cm

C 9.6 cm

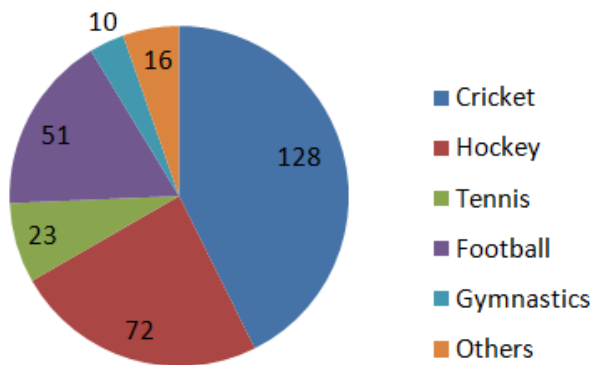
D 7.2 cm

Answer: C

Question 113

The given pie-chart depicts the expenditure incurred in crores towards each sport.

Expense(in crores)



In the given pie-chart, what will be the central angle of the sector representing football?

A 61.2°

B 51°

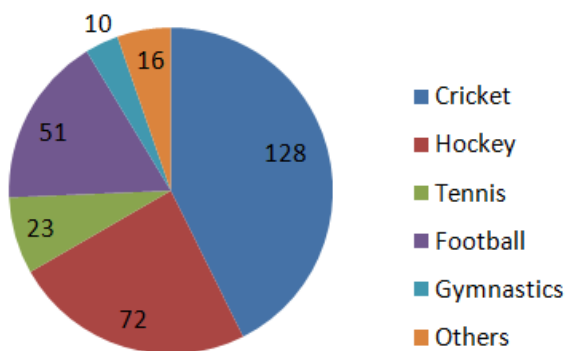
C 72.2°

D 24°

Answer: A

Explanation:

Expense(in crores)



According to question,

$$300 \text{ crores} = 360^\circ$$

$$1 \text{ crore} = \frac{360^\circ}{300} = \frac{6}{5}$$

From Fig,

$$\text{Expense on Football} = 51 \text{ crore}$$

$$\text{Angle representing Football} = 51 \times \frac{6}{5} = 61.2^\circ$$

Question 114

A girl walks to school from her house at 5 km/h speed for 24 minutes and cycles back the same distance at 8 km/h. The time taken to cycle back is:

- A 15 minutes
- B 8 minutes
- C 10 minutes
- D 21 minutes

Answer: A

Explanation:

Let the distance from house to school be = x

Question 115

The efficiency of A is thrice as that of B and efficiency of B is twice as that of C. If B alone can finish a work in 15 days, in how many days A and C together will complete that work?

- A $4\frac{2}{7}$
- B $6\frac{1}{2}$
- C $7\frac{4}{5}$
- D $4\frac{1}{3}$

Answer: A

Question 116

$\sqrt{4 + \sqrt{144}}$ is equal to:

- A 4
- B 12.17
- C 3.74
- D 14

Answer: A

Explanation:

$$\begin{aligned} & \sqrt{4 + \sqrt{144}} \\ & \sqrt{4 + \sqrt{12 \times 12}} \\ & \sqrt{4 + 12} \\ & \sqrt{16} \\ & \sqrt{4 \times 4} \\ & 4 \end{aligned}$$

Question 117

$\frac{3}{5} \times 4[7 - (\frac{2}{5} \times (13 + 2))]$ is equal to:

- A 0
- B $\frac{1}{5}$
- C 1
- D $2\frac{2}{5}$

Answer: D

Explanation:

$$\frac{3}{5} \times 4 [7 - (\frac{2}{5} \times (13 + 2))]$$

By using BODMAS

$$\frac{3}{5} \times 4 [7 - (\frac{2}{5} \times 15)]$$

$$\frac{3}{5} \times 4 [7 - 6]$$

$$\frac{3}{5} \times 4$$

$$2\frac{2}{5}$$

Question 118

From the monthly income, A spends 24% on household expenses, 16% on entertainment, 12% on education and saves the rest. If savings are ₹ 3,288, the monthly income of A is:

- A ₹ 6,323
- B ₹ 6,480
- C ₹ 6,654
- D ₹ 6,850

Answer: D

Question 119

The perimeter of floor of a square room is 230 m and height of the room is 5 m. The cost of painting the walls of the room at ₹ 7.50/m² is:

- A ₹ 4,312.50
- B ₹ 3,450
- C ₹ 8,625
- D ₹ 17,250

Answer: C

Question 120

If $x + \frac{1}{x} = 4\sqrt{3}$, then $x^2 + \frac{1}{x^2}$ is equal to:

- A 52
- B 44
- C 56
- D 46

Answer: D

Question 121

Nidhi scores 62 marks in Mathematics, 70 in English, 74 in Science. What should be her score in Social Sciences so that she gets an overall 68%?

- A 65
- B 68
- C 67
- D 66

Answer: D

Explanation:

Given,

Maths = 62, English = 70, Science = 74

Overall percentage = 68%

Let maximum marks be = 100

and marks of Social Science = x

$$\text{Percentage} = \frac{\text{Sum of marks obtained}}{\text{Total Marks}} \times 100$$

$$68 = \frac{62+70+74+x}{100} \times 100$$

$$x = 66$$

Thus,

Marks of Social Science = 66

Question 122

The average temperature for a week was 30°C . If the average temperature for first four days of the week was 31°C . then the average temperature for the remaining days of the week is:

- A 28.5°C
- B 28.67°C
- C 29.33°C
- D 29°C

Answer: B

Explanation:

$$\text{Average Temperature of week} = \frac{M+T+W+Th+F+Sat+S}{7}$$

Equation 1

$$\text{Average Temperature of week} = 30^\circ \text{ (Given)}$$

$$\frac{M+T+W+Th}{4} = 31^\circ \text{ (Given)}$$

$$M + T + W + Th = 31 \times 4 = 124 \quad \text{Equation 2}$$

Let the average temperature for remaining days = x

$$\frac{F+Sat+S}{3} = x \quad \text{Equation 3}$$

By using equations 1, 2, 3, we get,

$$x = 28.5$$

Thus,

the avg. temp. for remaining days = $28.5^\circ C$

Question 123

A boy walks from his house to the park which is 500 m away in 5 minutes and walks backs in 7 minutes. His average speed (in km/h) is:

- A 5
- B 1
- C 2.5
- D 12

Answer: A

Explanation:

Given,

The distance between home and park = 500m

$$\text{Average Speed} = \frac{\text{Total Distance Covered}}{\text{Total time taken}}$$

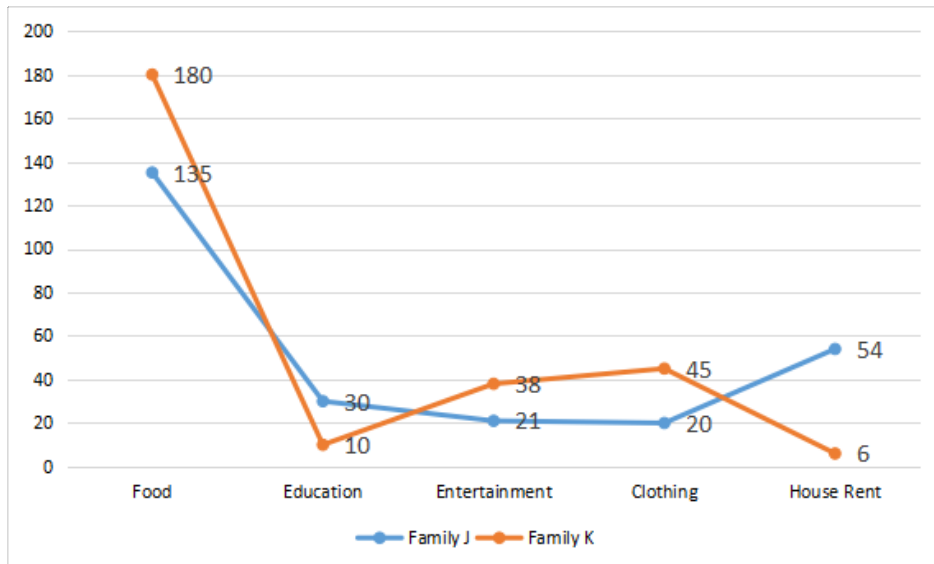
$$\text{Average Speed} = \frac{500+500}{60+60}$$

$$\text{Average Speed} = 5000 \frac{m}{sec}$$

$$\text{Average Speed} = 5 \frac{Km}{hr}$$

Question 124

The line graph shows the monthly expenditure by two families in hundreds:



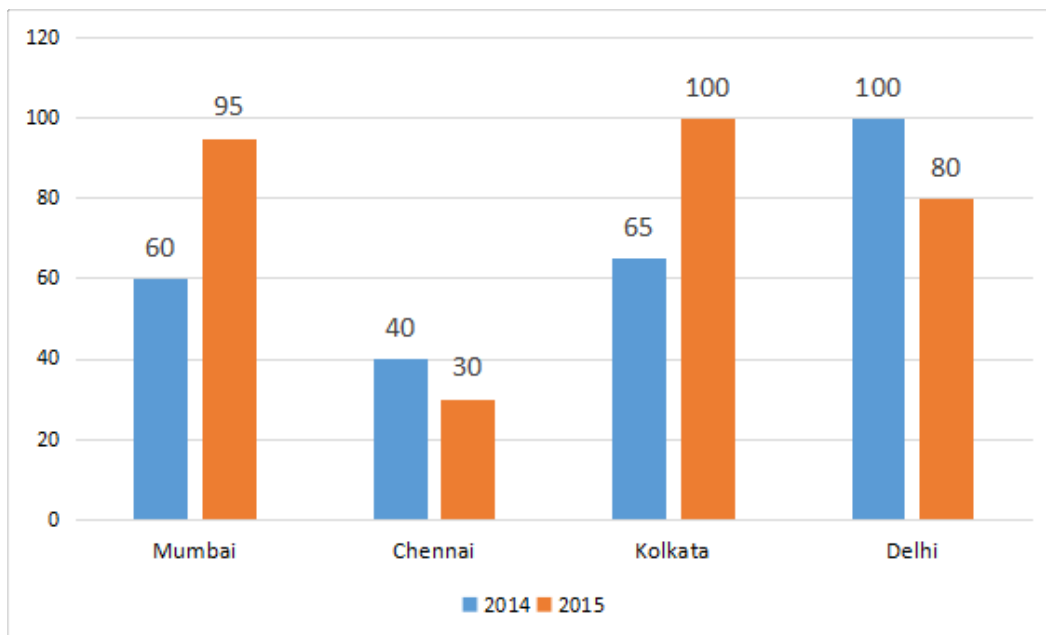
In the given line graph, if the monthly income of Family K increases to 337,200. What will be the increase in expenditure on entertainment? (Assuming they spend the same proportion as before. round off to one decimal)

- A 50.7
- B 43.8
- C 46.2
- D 51.9

Answer: A

Question 125

The given bar chart shows the sales of books (in thousands) in four metro branches of a company for the years 2014 and 2015.



In the given bar - chart. which branch has the highest increase in sale (in %) in 2015 as compared to 2014?

- A Mumbai
- B Kolkata

C Delhi

D Chennai

Answer: A

Explanation:

Total sale of Mumbai in 2014=60

Total sale of Mumbai in 2015=95

increase in sale from 2014 to 2015=95-60=35

percentage increase= $\frac{35}{60} \times 100 = 58.33$

Question 126

The length, breadth and height of a box are 506 cm, 345 cm and 230 cm respectively. The length of the longest scale that will measure the three dimensions of the box is:

A 30 cm

B 15 cm

C 46 cm

D 23 cm

Answer: D

Explanation:

Given,

Length = 506cm

Breadth = 345cm

Height = 230cm

Length of the longest scale = HCF of 506, 345, 230

HCF

$506 = 2 \times 11 \times 23$

$345 = 3 \times 5 \times 23$

$230 = 2 \times 5 \times 23$

$HCF = 23$

Length of longest scale = 23cm

Question 127

What is the difference between the greatest four digit and the smallest four digit number using the digits 2, 9, 6 and 5 (each digit can be used only once)?

A 7083

B 6993

C 6606

D 7056

Answer: A

Explanation:

Given digits are 2, 9, 6, 5

Smallest digit formed by given digits is = 2569

Greatest digit formed by given digits is = 9652

Difference between smallest and greatest digits =

$$9652 - 2569 = 7083$$

Question 128

₹ 2,64,000 is invested for 3 years at 8.25% p.a. simple interest. The interest is:

A ₹ 65,340

B ₹ 87,120

C ₹ 21,780

D ₹ 43,560

Answer: A

Explanation:

Given,

principal amount = ₹26400

Rate of interest = 8.25% p.a.

Time period = 3 years

We know that,

$$S.I. = \frac{(P \times r \times t)}{100}$$

$$S.I. = \frac{(264000 \times 8.25 \times 3)}{100}$$

$$S.I. = ₹65340$$

Question 129

There are 50 paise, 25 paise and ₹ 1 coins in a bag in the ratio 5 : 8 : 1. If the total value of all the coins is ₹ 55. how many 25 paise coins are there in the bag?

A 10

B 25

C 50

D 80

Answer: D

Explanation:

Let coins are

₹1 coins = 1x

Value of ₹ 1 coins = 1x

$$50 \text{ paise coins} = 5x$$

$$\text{Value of 50 paise coins} = \frac{5x}{2}$$

$$25 \text{ paise coins} = 8x$$

$$\text{Value of 25 paise coins} = \frac{8x}{4}$$

$$\text{Total amount} = ₹55$$

$$x + \frac{5x}{2} + \frac{8x}{4} = ₹55$$

$$x = 10$$

$$\text{Number of 25 paise coins} = 8x = 8 \times 10 = 80$$

Question 130

A ladder leaning against a wall makes an angle of 60° with the horizontal. If the foot of the ladder is 10 m away from the wall. what is the length of the ladder?

A 34.6 m

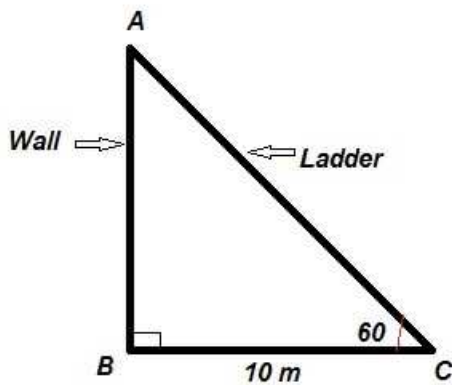
B 40 m

C 17.3 m

D 20 m

Answer: D

Explanation:



Given,

$$\angle ACB = 60^\circ$$

$$BC = 10 \text{ cm}$$

We know that, $\cos \theta = \frac{\text{Base}}{\text{Hypotenuse}}$

$$\cos \theta = \frac{BC}{AC}$$

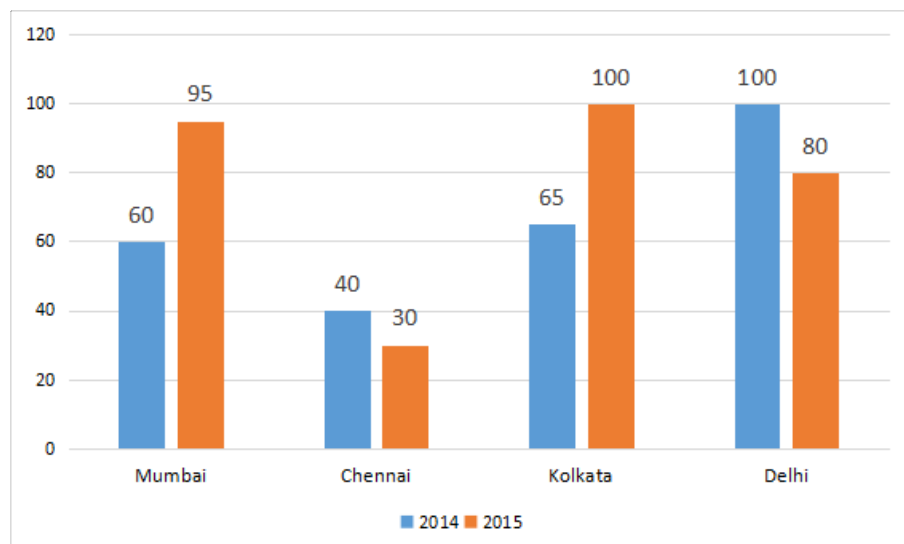
$$\cos 60^\circ = \frac{10}{AC}$$

$$\frac{1}{2} = \frac{10}{AC}$$

$$AC = 20 \text{ m}$$

Question 131

The given bar chart shows the sales of books (in thousands) in four metro branches of a company for the years 2014 and 2015.



In the given bar-chart, the ratio of total sales between Mumbai and Delhi is:

- A 23 : 25
- B 26 : 29
- C 31 : 36
- D 33 : 37

Answer: C

Explanation:

Total sale in Mumbai together in 2014&2015=60+95=155

Total sale in Delhi together in 2014&2015=100+80=180

Ratio=155:180=31:36

Question 132

On what sum of money, the interest for one year at 12% p.a. compounded half yearly is ₹ 1,545?

- A ₹ 12,500
- B ₹ 12,875
- C ₹ 25,750
- D ₹ 24,300

Answer: A

Explanation:

In compound interest,

Final amount, $A = P(1 + r/n)^{nt}$.

where P is principal amount, r is rate of interest, n is number of times interest applied and t is number of times period elapsed.

So, interest gain = $A - P$.

So, $P(1 + 0.12/2)^2 - P = 1545$.

$$\text{or, } P \times 1.1236 - P = 1545.$$

$$\text{or, } P = (1545/0.1236).$$

$$\text{or, } P = 12500.$$

A is correct choice.

Question 133

₹ 7,80,516 is divided among A, B, C and D in the proportion of 2 : 3 : 4 : 3. The share of C is:

A ₹ 1,30,086

B ₹ 2,24,562

C ₹ 2,60,172

D ₹ 1,95,129

Answer: C

Explanation:

Share of C would be $4/(3 + 2 + 4 + 3)$ or $(1/3)$ times of total dividend.

$$\text{So, share of C} = 780516/3 = 260172.$$

C is correct choice.

Question 134

PA and PB are two tangents to a circle with centre O. from a point P outside the circle. A and B are points on the circle. If $\angle APB = 70^\circ$. then $\angle OAB$ is equal to:

A 50°

B 35°

C 20°

D 25°

Answer: B

Explanation:

$$\angle APB = 70^\circ$$

$$\text{Then } \angle AOB = 110^\circ$$

But triangle AOB is isosceles triangle as

$$AO = BO.$$

$$\text{So, } \angle OAB = \angle OBA.$$

$$\text{So, } 2\angle OAB + \angle AOB = 180^\circ$$

$$\text{or, } \angle OAB = 70/2 = 35^\circ.$$

B is correct choice.

Question 135

What percentage is 3 cm in 12 m?

- A 0.025
- B 25
- C 0.25
- D 2.5

Answer: C

Explanation:

$$12m = 1200cm.$$

So, 3 cm is $(3/1200) \times 100 = 0.25$ percent of 12m.

C is correct choice.

Question 136

The top of a broken tree touches the ground at an angle of 60° and at a distance of 45 m from the base of the tree. The total height of the tree is: (Use $\sqrt{3} = 1.73$ and $\sqrt{2} = 1.41$)

- A 167.85 m
- B 153.45 m
- C 141.3 m
- D 137.24 m

Answer: A

Explanation:

$$\tan 60^\circ = (\text{height of non broken part} / 45).$$

$$\text{So, height of non broken part} = 45\sqrt{3} = 77.94$$

So,

$$77.94^2 + 45^2 = \text{height of broken part}^2$$

$$\text{or, height of broken part} = \sqrt{8100} = 90.$$

$$\text{So, the height of tree} = 77.94 + 90 = 167.94.$$

A is correct choice.

Question 137

A mobile cover costing ₹ 264 is available at a discount of 12%. What would be the selling price of 4 such mobile covers?

- A ₹ 940.46
- B ₹ 934.04
- C ₹ 929.28
- D ₹ 936.72

Answer: C

Explanation:

Selling price of one cover

$$= 264 \times 0.88 = 232.32$$

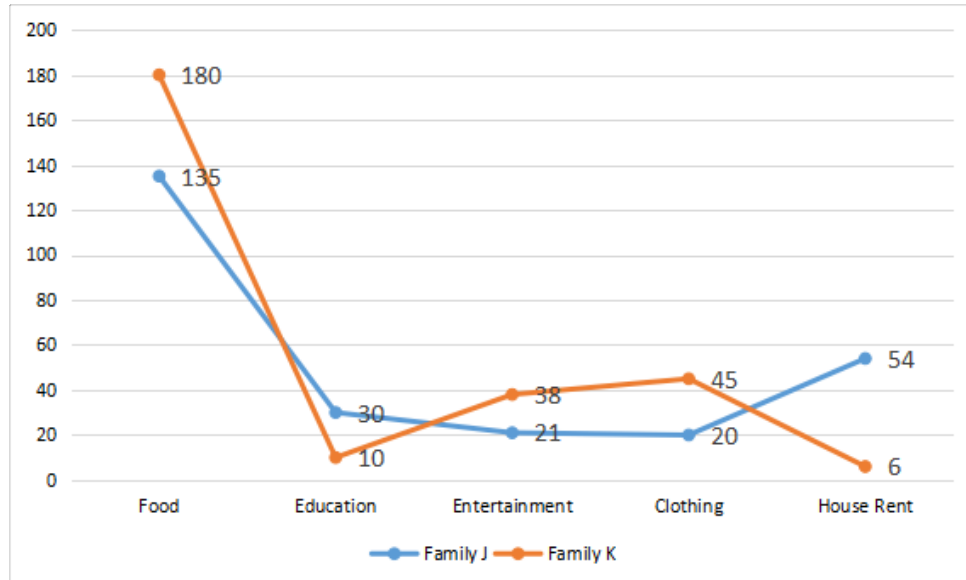
So, selling price of 4 cover

$$= 4 \times 232.32 = 929.28$$

C is correct choice.

Question 138

The line graph shows the monthly expenditure by two families in hundreds:



In the given line graph, what is the ratio of the difference in spending between food and education for family J and K?

- A 21 : 34
- B 31 : 36
- C 13 : 25
- D 9 : 2

Answer: A

Explanation:

Difference between food and education for

$$\text{family J} = 135 - 30 = 105.$$

$$\text{and family K} = 180 - 10 = 170.$$

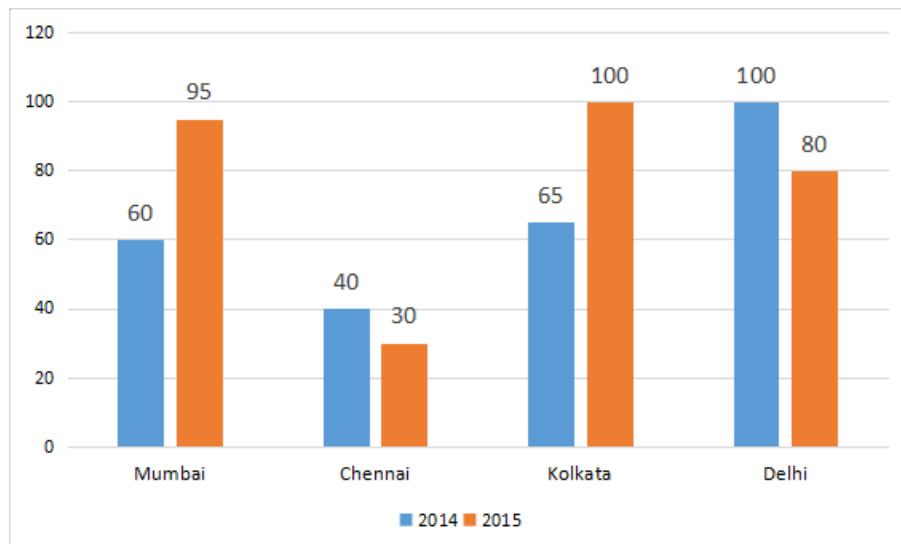
So, ratio between J and K is

$$= 105 : 170 = 21 : 34$$

A is correct choice.

Question 139

The given bar chart shows the sales of books (in thousands) in four metro branches of a company for the years 2014 and 2015.



In the given bar-chart, calculate the percentage increment of sales between the year 2014 and 2015 (round off to one decimal).

- A 14.9%
- B 14.5
- C 15.1%
- D 13.7

Answer: C

Explanation:

Sales of 2014 = $60 + 40 + 65 + 100 = 265$.

Sales of 2015 = $95 + 30 + 100 + 80 = 305$.

So, increment is = $(305 - 265)/265$.

= $40/265 = 0.1509$

So, C is correct choice.

Question 140

A diagonal of a quadrilateral is 40 cm. The length of the perpendiculars from opposite vertices is 7.5 cm and 8.6 cm. The area of the quadrilateral is:

- A 288 cm^2
- B 322 cm^2
- C 434 cm^2
- D 368 cm^2

Answer: B

Explanation:

Total area of the quadrilateral is

= $(1/2) \times 40 \times 7.5 + (1/2) \times 40 \times 8.6$

= 322 cm^2 .

So, B is correct choice.

Question 141

If $4 \tan \theta = 3$, $\frac{5 \sin \theta - 3 \cos \theta}{5 \sin \theta + 3 \cos \theta}$ is equal to:

A $\frac{1}{9}$

B $\frac{1}{3}$

C 9

D 3

Answer: A

Explanation:

$$4 \tan \theta = 3.$$

$$\text{or, } \frac{\sin \theta}{\cos \theta} = \frac{3}{4}.$$

Let say, $\sin \theta = 3k$ and $\cos \theta = 4k$.

$$\text{So, } \frac{5 \sin \theta - 3 \cos \theta}{5 \sin \theta + 3 \cos \theta}$$

$$= \frac{5 \times 3k - 3 \times 4k}{5 \times 3k + 3 \times 4k}$$

$$= \frac{15k - 12k}{15k + 12k}$$

$$= \frac{3k}{27k}$$

$$= \frac{1}{9}.$$

A is correct choice.

Question 142

The angles of a triangle are $2x - 3$, $x + 12$, $x - 1$. The largest angle of the triangle is:

A 55

B 42

C 94

D 83

Answer: D

Explanation:

We know sum of all angles of a triangle is 180° .

$$\text{So, } (2x - 3) + (x + 12) + (x - 1) = 180.$$

$$\text{or, } 4x + 8 = 180$$

$$\text{or, } x = 172 \div 4 = 43.$$

$$\text{So, largest angle} = 2 \times 43 - 3 = 83.$$

D is correct choice.

Question 143

If $(2x - 5)^3 + (x - 4)^3 + (x - 11)^3 = 3(2x - 5)(x - 4)(x - 11)$ then what is the value of x ?

- A 5
- B 7
- C 3
- D 18

Answer: A

Explanation:

If we go by options one by one. Let us take the value as 5.

$$\text{RHS} = 5^3 + 1^3 - 6^3 = 125 + 1 - 216 = -90.$$

and

$$\text{LHS} = 3 \times 5 \times 1 \times -6 = -90.$$

So, A is correct choice.

Question 144

If $a^3 - b^3 = 416$ and $a - b = 8$, then $(a + b)^2 - ab$ is equal to:

- A 38
- B 32
- C 52
- D 42

Answer: C

Explanation:

$$(a^3 - b^3) = (a - b)(a^2 + ab + b^2)$$

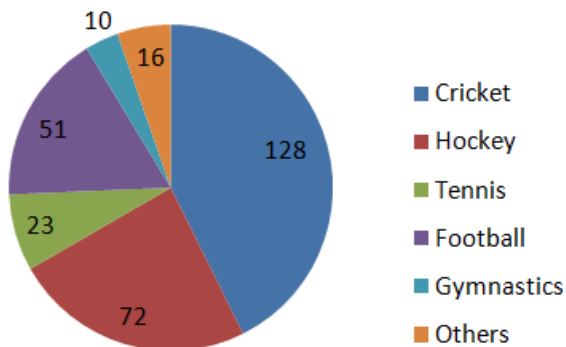
$$\text{So, } (a^2 + ab + b^2) = 416 \div 8 = 52.$$

C is correct choice.

Question 145

The given pie-chart depicts the expenditure incurred in crores towards each sport.

Expense(in crores)



In the given pie-chart, what is the ratio of expenditure between hockey and gymnastics?

- A 24 : 17

B 64 : 5

C 16 : 9

D 36 : 5

Answer: D

Explanation:

Hockey = 72 crores.

Gymnastic = 10 crores.

so, Hockey : Gymnastic = 72 : 10 = 36 : 5.

D is correct choice.

Question 146

A sells 12 bicycles at a profit of ₹ 516 per bicycle and sells 3 bicycles at a loss of ₹ 129 per bicycle. If the total profit percentage on all the bicycles sold is 15%. the cost price per bicycle is:

A ₹ 4440

B ₹ 2960

C ₹ 2580

D ₹ 3870

Answer: C

Explanation:

Let say, cost price of a bicycle is X.

Cost price of 15 bicycle is 15X.

Then selling price of total 15 bicycle is

$$= 12(X + 516) + 3(X - 129) = (15X + 5805).$$

Selling price of 15 bicycle = $15 \times (1.15X)$.

$$\text{So, } 15X + 5805 = 17.25X$$

$$\text{or, } 2.25X = 5805$$

$$\text{or, } X = 2580.$$

C is correct choice.

Question 147

$7 - (4 \times 3 - (-10) \times 8 \div (-4))$ is equal to:

A 53

B 0

C -1

D 15

Answer: D

Explanation:

$$7 - (4 \times 3 - (-10) \times 8 \div (-4))$$

Using BODMAS

$$= 7 - (4 \times 3 - (-10) \times (-2))$$

$$= 7 - (12 - 20)$$

$$= 7 + 8$$

$$= 15.$$

D is correct choice.

Question 148

21 typists complete a project in 8 days. In how many days 15 typists will complete the project?

A 11.2

B 9.3

C 7

D 5.8

Answer: A

Explanation:

21 typists can do the full work in 8 days.

1 typist can do $(1/168)$ part of job in 1 day.

So, 1 typist can do full job in 168 days.

or, 15 typists can do full job in $(168/15) = 11.2$ days.

A is correct choice.

Question 149

Three pipes X, Y and Z discharge three different chemicals A, B and C in a tank. The pipes can fill the tank in 20, 25 and 40 minutes respectively. What will be the proportion of chemical B in the tank, if all the pipes are open for 10 minutes?

A $\frac{11}{15}$

B $\frac{13}{23}$

C $\frac{8}{23}$

D $\frac{4}{7}$

Answer: C

Explanation:

In 1 minute A, B and C together can fill the tank is $= (1/20) + (1/25) + (1/40)$

$$= (10 + 8 + 5)/200$$

$$= 23/200.$$

So, in 10 minutes they can fill $(230/200)$.

B can fill in 10 minutes is $= 10/25$.

So, proportion in B will be

$$= (200/230) \times (10/25).$$

$$= 8/23.$$

So, C is correct choice.

Question 150

A pipe can fill a tank in 32 minutes. Due to a leakage, the tank gets filled in 48 minutes. The time the leakage will take to empty the full tank is:

- A 1 hour 56 minutes
- B 1 hour 42 minutes
- C 1 hour 20 minutes
- D 1 hour 36 minutes

Answer: D

Explanation:

LCM of (32, 48) = 96.

Let say, it will take X minutes to empty the full tank.

$$\text{So, } \left(\frac{1}{32} - \frac{1}{X} \right) = \frac{1}{48}$$

$$\text{Or, } \frac{1}{X} = \frac{1}{32} - \frac{1}{48}$$

$$\text{or, } \frac{1}{X} = \frac{3 - 2}{96}$$

$$\text{or, } \frac{1}{X} = \frac{1}{96}$$

$$\text{So, } X = 96.$$

So, it will take 96 minutes or 1 hour 36 minutes to fill the tank.

English

Instructions

For the following questions answer them individually

Question 151

Identify the segment in the sentence, which contains the grammatical error.

These stray cattles are roaming around the town.

- A are roaming around
- B stray cattles
- C These
- D the town.

Answer: B

Instructions

In the following passage some words have been deleted. Fill in the blanks with the help of the alternatives given. Select the most appropriate option for each number.

Passage:

The last mammoths, who were very large elephant-like animals, lived as recently as 4,000 years ago. (1) their well-preserved bodies can be (2) frozen in the tundra of Siberia. Because (3) bodies were so well protected from decay (4) the permafrost, their genetic material remained intact. (5) at Harvard University are researching ways to bring the mammoth back to life.

Question 152

Select the most appropriate option to fill in blank No.1.

- A So
- B But
- C And
- D Because

Answer: B

Question 153

Select the most appropriate option to fill in blank No.2.

- A unearthed
- B uncovered
- C found
- D got

Answer: C

Question 154

Select the most appropriate option to fill in blank No.3.

- A them
- B its
- C their
- D they

Answer: C

Question 155

Select the most appropriate option to fill in blank No.4.

- A in
- B at
- C on
- D from

Answer: A

Question 156

Select the most appropriate option to fill in blank No.5.

- A Engineers
- B Scientists
- C Investigators
- D Doctors

Answer: B

Instructions

For the following questions answer them individually

Question 157

Select the wrongly spelt word.

- A hospitable
- B hasten
- C humanitariun
- D hostile

Answer: C

Question 158

Select the most appropriate word for the given group of words.

obsession with one particular thing

- A hypomania
- B monornania
- C insomnia
- D pyromania

Answer: B

Question 159

Select the antonym of the given word.

ENIGMATIC

- A mysterious
- B ambiguous
- C straightforward
- D inscrutable

Answer: C

Question 160

Select the synonym of the given word.

VAGABOND

A visitor

B tourist

C tramp

D pilgrim

Answer: C

Question 161

Select the most appropriate word to fill in the blanks.

The new typist is efficient the previous one.

A such; as

B as; so

C so; that

D as; as

Answer: D

Question 162

Select the most appropriate word to fill in the blank.

It is not safe for children to on the road.

A plays

B Play

C played

D playing

Answer: B

Question 163

Identify the segment in the sentence, which contains the grammatical error.

I was not able to solve the questions as I was not knowing the answers.

A was not knowing

B the answers

C able to solve

D I was not

Answer: A

Question 164

Select the wrongly spelt word.

- A frustrated
- B fundamantal
- C fragmentation
- D fugitive

Answer: B

Question 165

Select the most appropriate meaning of the given idiom.

Miss the boat

- A lose an opportunity
- B accept defeat
- C lose courage
- D be too slow

Answer: A

Question 166

Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select No improvement.

Make sure that all the equipment has put away properly.

- A all the equipment is put away
- B all the equipment be putting away
- C all the equipments have put away
- D No improvement.

Answer: A

Question 167

Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select No improvement.

He didn't explain a great deal concerned the scheme though he spoke for a long time.

- A a great deal to be concerned the scheme

- B a great deal as concerning as the scheme
- C a great deal concerning the scheme
- D No improvement.

Answer: C

Question 168

Select the antonym of the given word.

SOMBER

- A grim
- B calm
- C serious
- D cheerful

Answer: D

Question 169

Identify the segment in the sentence, which contains the grammatical error.

This is the boy which took away the books.

- A which took away
- B the boy
- C the books
- D This is

Answer: A

Question 170

Identify the segment in the sentence, which contains the grammatical error.

Until I do not get the loan. I cannot set up my business.

- A I cannot
- B get the loan
- C set up
- D do not

Answer: D

Question 171

Select the wrongly spelt word.

- A expenditure

- B expansive
- C exhibition
- D exhausted

Answer: A

Question 172

Select the antonym of the given word.

CONCENTRATED

- A strong
- B thick
- C diluted
- D potent

Answer: C

Question 173

Select the synonym of the given word.

FAKE

- A real
- B genuine
- C false
- D factual

Answer: C

Question 174

Select the most appropriate meaning of the given idiom.

can't cut the mustard

- A to be successful
- B to render a service
- C to win a victory
- D to be unable to do a job

Answer: D

Question 175

Select the antonym of the given word.

HIDEOUS

- A charming

B ugly

C grim

D ideal

Answer: A

Question 176

Select the most appropriate word for the given group of words.

someone who is satisfied with life in general.

A contented

B contentious

C contemplative

D cooperative

Answer: A

Question 177

Select the most appropriate meaning of the given idiom.

in a nutshell

A in control

B in short

C in serious trouble

D in disgrace

Answer: B

Question 178

Select the most appropriate word to fill in the blank.

The Max Hospital is within easy reach the people living in Saket.

A at

B to

C from

D of

Answer: D

Question 179

Select the most appropriate word to fill in the blank.

Kavya picked up all the toys and put in a box.

- A them
- B it
- C this
- D that

Answer: A

Question 180

Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select **No improvement**.

She has been suffering from malaria from the last four days.

- A No improvement.
- B of malaria from the last four days
- C from malaria since the last four days
- D from malaria for the last four days

Answer: D

Question 181

Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select **No improvement**.

Yesterday I saw my brother to repair his friend's bicycle.

- A my brother repairs his friend's bicycle
- B No improvement.
- C my brother repair his friend's bicycle
- D my brother having repaired his friend's bicycle

Answer: C

Question 182

Select the most appropriate meaning of the given idiom.

A fish out of water

- A feeling sick
- B in unfamiliar circumstances
- C in the absence of something

D ready to die

Answer: B

Question 183

Select the most appropriate word for the given group of words.

extreme fear of water

A hydrophobia

B kleptomania

C claustrophobia

D insomnia

Answer: A

Question 184

Select the most appropriate word for the given group of words.

an apparatus for reducing or increasing the voltage of an alternating current.

A translucent

B transparent

C transformer

D transonic

Answer: C

Question 185

Select the wrongly spelt word.

A dwarf

B dwelling

C durable

D dwindle

Answer: D

Question 186

Select the synonym of the given word.

SUBSTITUTE

A replace

B displace

C reserve

D avoid

Answer: A

Question 187

Select the most appropriate word to fill in the blank.

If I meet him, I give him your message.

A would

B could

C should

D will

Answer: D

Question 188

Select the antonym of the given word.

VIGOROUS

A forceful

B enthusiastic

C spiritless

D energetic

Answer: C

Question 189

Identify the segment in the sentence. which contains the grammatical error.

Hardly he had stepped out of the house when a tree fell on the roof.

A fell on the roof

B out of

C Hardly he had

D when a tree

Answer: C

Question 190

Select the synonym of the given word.

EXTRICATE

A remove

B delete

C complicate

D intricate

Answer: A

Question 191

Select the most appropriate meaning of the given Idiom.
a dog's life

A a miserable existence

B a life full of freedom

C a life spent in guarding something

D a restful life

Answer: A

Instructions

Read the following passage and answer the questions given after it.

At least 200 species of 'mega fauna' are declining in number. finds research. Humans' meat-eating habits may be pushing at least 150 species of the planet's largest animals towards the threat of extinction. a study has found. The research was published in the journal Conservation Letters. Of nearly 300 species studied. 70 per cent are in decline. and 59 per cent of the species are threatened with disappearing from the globe, said William Ripple. a professor at the Oregon State University in the US.

"Direct harvest for human consumption of meat or body parts is the biggest danger to nearly all of the large species with threat data available." Ripple said. "Thus, minimising the direct killing of these vertebrate animals is an important conservation tactic that might save many of these iconic species as well as all of the contributions they make to their ecosystems." said Ripple.

Researchers were part of an international collaboration that built a list of mega fauna based on body size and taxonomy — qualifying for the list were species unusually large in comparison to other species in the same class. The mass thresholds the researchers decided on were 100 kg for mammals. ray-finned fish and cartilaginous fish and 40 kg for amphibians, birds and reptiles since species within these classes are generally smaller.

Over the past 500 years. as humans' ability to kill wildlife at a safe distance has become highly refined. two per cent of mega fauna species have gone extinct. For all sizes of vertebrates. the figure is 0.8 per cent. "our results suggest we're in the process of eating mega fauna to extinction." Ripple said. "Through the consumption of various body parts, users of Asian traditional medicine also exert heavy tolls on the largest species." he said. "In the future, 70 per cent will experience further population decline and 60 per cent of the species could become extinct or very rare," he added.

Nine mega fauna species have either gone extinct overall. or gone extinct in all wild habitats. in the past 250 years. including two species of giant tortoise. one of which disappeared in 2012. and two species of deer. "In addition to intentional harvesting. a lot of land animals get accidentally caught in snares and traps. and the same is true of gillnets, trawls and longlines in aquatic systems." Ripple said. "And there's also habitat degradation to contend with. When taken together. these threats can have major negative cumulative effects on vertebrate species," he said.

Question 192

The theme of the passage is

A over the last 500 years humans have become skillful in killing animals

B animals are becoming extinct due to the destruction of their habitat.

C survival of vertebrates is important for the conservation of the ecosystem.

D the human appetite is driving many animals to extinction

Answer: D

Question 193

Which of the following falls in the 40 kg category?

- A cartilaginous fish
- B ray-firmed fish
- C mammals
- D amphibians

Answer: D

Question 194

How many species of mega fauna are facing extinction as a result of the direct human consumption?

- A 250 species
- B 150 species
- C 200 species
- D 300 species

Answer: B

Question 195

“Intentional harvesting” refers to

- A killing of animals for one’s safety
- B killing of animals due to habitat degradation
- C accidental killing of animals in traps and snares
- D the killing of animals deliberately

Answer: D

Question 196

Which statement is NOT true according to the passage?

- A Nine mega fauna species have gone extinct in the past 250 years.
- B Two per cent of mega fauna species have gone extinct due to killing by humans.
- C In the future, 80 per cent of the species could become extinct or very rare.
- D Of the 300 species studied, 59 per cent are threatened with disappearing from the globe.

Answer: C

Instructions

For the following questions answer them individually

Question 197

Select the most appropriate word for the given group of words.

a sum of money added to a person's wages as a reward for good performance.

- A remuneration
- B allowance
- C wages
- D bonus

Answer: D

Question 198

Select the wrongly spelt word.

- A blessing
- B blight
- C blizaard
- D blossom

Answer: C

Question 199

Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select **No improvement**.

Each person watching the procession was provided with a flag.

- A No improvement.
- B watched the procession
- C having watched the procession was provided
- D to watching the procession

Answer: A

Question 200

Select the synonym of the given word.

GRATUITOUS

- A grateful
- B confidential
- C unnecessary
- D voluntary

Answer: A