SSC CPO 15th-March-2019-Shift-2

Reasoning

Instructions

For the following questions answer them individually

Question 1

Three of the following four number-pairs are alike in a certain way and one is different. Identify the different one.

A 16 : 36

B 25 : 49

C 48 : 81

D 64 : 100

Answer: C

Explanation:

16:36 means $4^2 : 6^2$

25:49 means $5^2 : 7^2$

48:81 means $4^2 \times 3 : 9^2$

64:100 means $8^2 : 10^2$

So, C is correct.

Question 2

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

A Escalator

B Climb

C Staircase

D Ladder

Answer: B

Explanation:

Escalator,Staircase and Ladder used to climb . So, these three are of one type.

So, B is correct.

Question 3

Select the correct mirror image of the given figure. when the mirror image is placed at the right side.

BKUCL31

A 1Ɛ⅃ϽUꓘꓭ

B 1Ɛ⅃ϽUꓘꓭ

C 1Ɛ⅃ϽUꓘꓭ

Answer: D

Explanation:
Every image shows symmetric image about its original.

So D is correct.

Question 4

Which number will replace the question mark (?) in the following series?
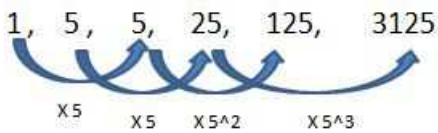**1, 5, 5, 25, ?, 3125**

A 215

B 125

C 225

D 375

Answer: B

Explanation:

So, B is correct choice.

Question 5

If X = 48 and ACT = 48, then TALL = ...

A 88

B 92

C 90

D 45

Answer: C

Explanation:
In conversion table $X = 24, A = 1, C = 3, T = 20$.

So, X encoded to $24 \times 2 = 48$.

ACT encoded to $1 + 3 + 20 = 24$ & $24 \times 2 = 48$.

So, TALL will become $2 \times (20 + 1 + 12 + 12) = 90$.

C is correct.

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.
Astronomer : Observatory

A   Doctor : Nurse

B   Farmer : Field

C   Supervisor : Officer

D   Museum : Visitor

   Answer: B

Explanation:
An Astronomer needs an Observatory for work.

Similarly, A Farmer needs a Field for work.

Option B is correct.

Question 7

In a certain code language, HAMMER is written as GBLNDS. How will NEEDLE be written as in that language?

A   OFLEKF

B   DLENEE

C   MFENKF

D   MFDEKF

   Answer: D

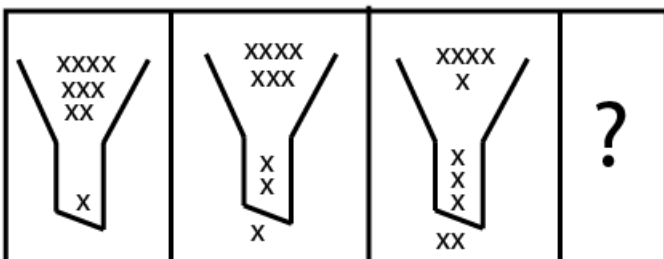**Explanation:**
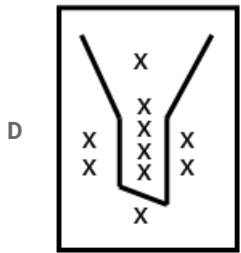$H - 1 = G,\ A + 1 = B,\ M - 1 = L,\ M + 1 = N,\ E - 1 = D,\ R + 1 = S.$
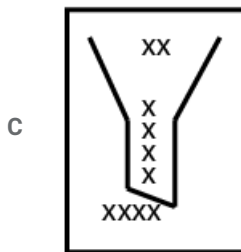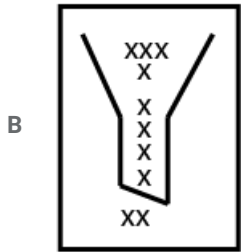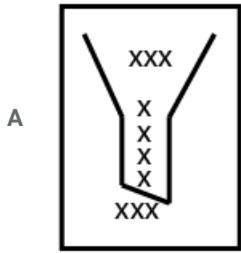
So, if NEEDLE is coded by same process then it will become MFDEKF.

D is correct.

Question 8

Choose the option that will complete the given series:

A

B

C

D

Answer: A

Explanation:

Two "XX" are cut from upper side and one"X" each added to bottom inside shape

and also at the bottom of the shape.

So, image in option A will be the right choice.

Question 9

Arjun starts walking towards the east. Afier walking 50 m, he turns to his lefi and walks 15 m straight. Then. he turns to his left and walks 30 in straight. Again. he turns to his the left and walks a distance of 15 m. How far is he from the starting point?
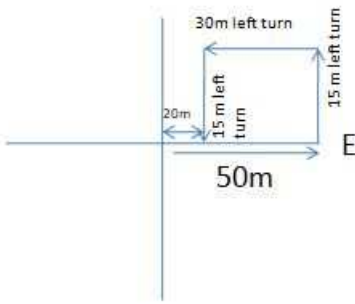
A   40 m

B   30 m

C   10 m

D   20 m

Answer: D

Explanation:

He is 20 m away from starting point.
Option D is correct.

Question 10

Two statements are given. followed by two conclusions numbered I and II. Assuming the statements to be true. even if they seem to be at variance with commonly known facts. decide which of the conclusions logically follow(s) from the statements.

Statements:
Some dancers are students.
Some students are singers.

Conclusions:
I. Some singers are dancers.
II. No singer is a dancer.

A Either conclusion I or II follows.

B Only conclusion I follows.

C Only conclusion II follows.

D Neither conclusion I nor II follows.

Answer: A

Explanation:

As both the statement starts with "Some", then conclusion can start with either "Some" or "None".

So, either conclusion 1 is true or conclusion 2 is true.

Option A is correct.

Question 11

Which two signs should be interchanged to make the given equation correct?
$24 - 8 \div 5 + 5 \times 3 = 13$

A $\times$ and $+$

B $\div$ and $-$

C $\div$ and $+$

D $\times$ and $\div$

Answer: B

Explanation:

if we interchange $\div and -$ then equation will be,

$24 \div 8 - 5 + 5 \times 3$

$$= 3 - 5 + 5 \times 3$$

$$= 3 - 5 + 15$$

$$= 18 - 5$$

$$= 13.$$

B is correct.

Question 12

Identify the number that does NOT belong in the given series.
0, 6, 24, 60, 120, 216

A 6

B 216

C 60

D 120

Answer: B

Explanation:
$1^3 - 1 = 0.$

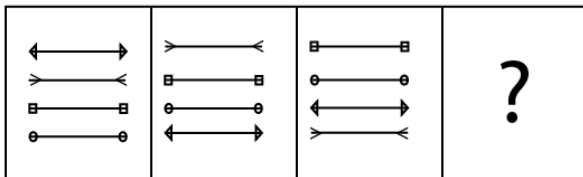$2^3 - 2 = 6.$

$3^3 - 3 = 24.$

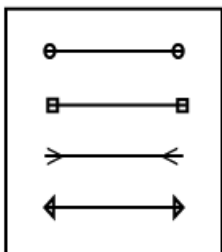$4^3 - 4 = 60.$

$5^3 - 5 = 120.$

$6^3 - 6 = 210.$
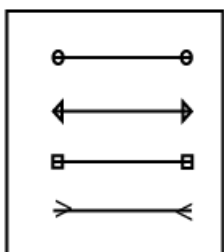
So, 216 is not belong to the series.

Question 13

Select the option that Will come next In the following figure series.
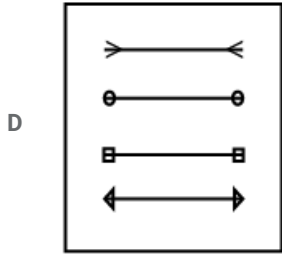

A

B

C

D
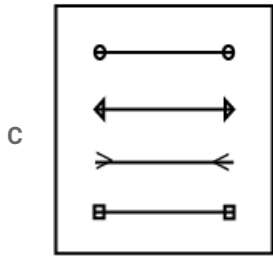
Answer: C

Explanation:
First line comes in the last position in 2nd image and then first line comes to the second position.

So, In the last image first line with two round shape on each side comes to the last image again.

So, C is correct choice.

Question 14

Select the option that is related to the third number in the same way as the second number is related to the first number.
4262 : 4271 :: 2139 : ....

A 2346

B 7132

C 9521

D 2572

Answer: A

Explanation:
4262 : 4271 digits in each number sum up to 14 .

$4262 = 4 + 2 + 6 + 2 = 14, 4271 = 4 + 2 + 7 + 1 = 14$

Similarly, numbers in second set are sum up to 15 .

So,2346 is correct choice.

Question 15

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

A TVXZ

B DFHJ

C LMOQ

D GIKM

Answer: C

Explanation:

$T + 2 = V, V + 2 = X, X + 2 = Z$

$D + 2 = F, F + 2 = H, H + 2 = J$

$L + 1 = M, M + 2 = O, O + 2 = Q$

$G + 2 = I, I + 2 = K, K + 2 = M$

So, letters in option C does not follow the pattern.

Option C is correct choice.

Question 16

Which letter will replace the question mark (?) in the following series?
X, V, T, R, P, ?

A N

B S

C Q

D O

Answer: A

Explanation:
In English alphabets,V is preceded X by 2 words ,T is preceded V by 2 words, R is preceded T by 2 words , P is preceded R by 2 words and N is preceded P by 2 words.

So, Option A is correct.

Question 17

Select the correct mirror image of the given figure when the mirror is placed on the right of the figure.

A

B

C

D
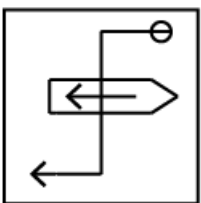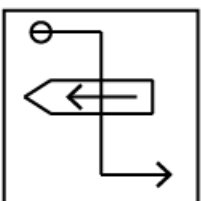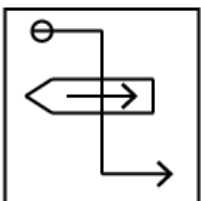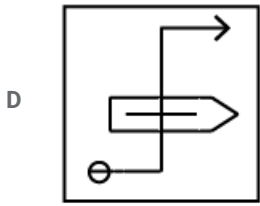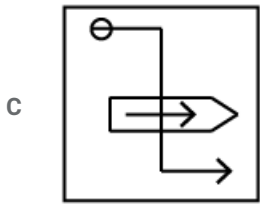
Answer: B

Explanation:

Image reflection
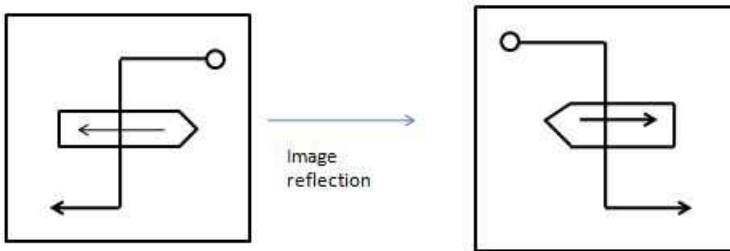
B is correct choice

Question 18

'Flowers' is related to 'Bouquet' in the same way as 'Cattle' is related to ' .... '.

A Cow

B Gang

C Swarm

D Herd

Answer: D

Explanation:

Bouquet is filled with Flowers , similarly, Herd is filled with Cattle.

D is correct.

Question 19

Select the set of numbers that is similar to the following set.
(4, 3, 19)

A (3, 5, 25)

B (8, 5, 96)

C (6, 4, 40)

D (5, 9, 28)

Answer: C

Explanation:

$(4, 3, 19) \longrightarrow 4^2 + 3 = 19.$

Similarly, $(6, 4, 40) \longrightarrow 6^2 + 4 = 40.$

So, C is correct.

Question 20

Two statements are given. followed by two conclusions numbered I and II. Assuming the statements to be true. even if they seem to be at variance with commonly known facts. decide which of the conclusions logically follow(s) from the statements.
Statements:
All vans are cats.
All jeeps are cats.
Conclusions:
I. All vans are jeeps.
II. Some jeeps are vans.

A   Both conclusions I and II follow

B   Only conclusion I follows

C   Only conclusion II follows

D   Neither conclusion I nor conclusion II follows

   Answer: D

Explanation:
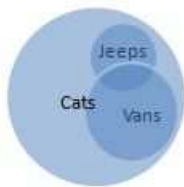
Figure 1   Figure 2   Figure 3   Figure 4

These figures are possible.

So, conclusion 1 and conclusion can be possible but not necessarily true.

Option D is correct.

Question 21

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

A   EIY

B   FHX

C   EHW

D   FIY

   Answer: D

Explanation:
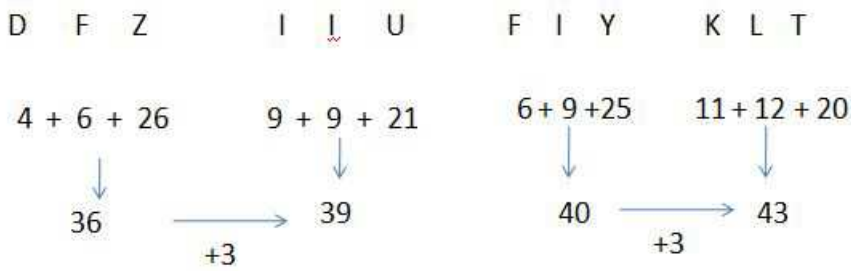
D is correct choice.

Question 22

Select the option that is related to the third word in the same way as the second word is related to the first word.
Body : Vitamins :: Crops : ....

A Fertilizer

B Water

C Farmer

D Air

Answer: A

Explanation:
Vitamins are essential for body .

Similarly , Fertilizer are important for Crops.

Option A is correct choice.

Question 23

If in a certain code language , TIGER is written as SUHJFHDFQS, then which word will be coded as GINPQSRTDF?

A HORSE

B HORTF

C HERBS

D HOESR

Answer: A

Explanation:
Each letter is coded by it's next letter and previous letter as per the english alphabetical series.

Like ,T from TIGER is coded by it's preceding letter S and it's succeeding letter U.

So, the given code will produce from HORSE .

A is correct choice.

Question 24

Three of the following four number-pairs are alike in a certain way and one is different. Identify the different one.

A 25 : 65

B 28 : 82

C 62 : 26

D 46 : 64

   Answer: A

Explanation:

Except option A , numbers in every set are following same pattern in following manner.

note : each digits are interchanged in the number set.

So, Option A is correct.

Question 25

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

A Morning : Night

B Touch : Push

C Speak : Shout

D Refuse : Deny

   Answer: D

Explanation:

words used in set are opposite to each other.

But , Refuse and Deny are similar words.

So, Option D is correct choice.

Question 26

Select the Venn diagram that represents the correct relationship between the following classes.
Students, Players, Audience

A

B

C

D
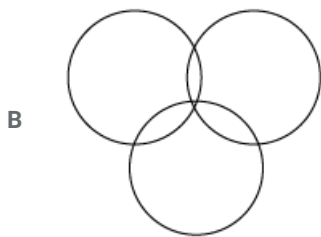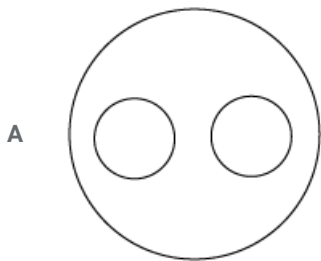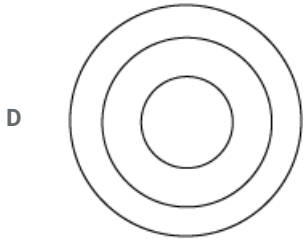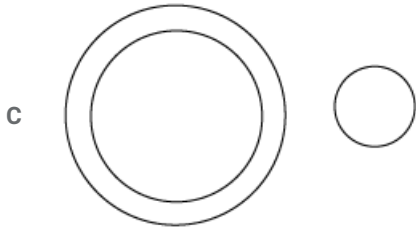
Answer: B

Explanation:

Some students can be Players ,Some Players can be Audience and Some Audience can be Students also.

Similarly, Some Players can be Students as well as Audience.

So, Option B is correct.

Question 27

Kartik started walking from a mall. First, he walked 8 km towards the north. From there. he turned rigrt and walked 3 km. Then. he turned right and walked 5 km. Again. he turned right and walked 7 km. What is the shortest distance from the mall to Kartik's final location?

A   10 km

B   5 km

C   3 km

D   7 km

Answer: B

Explanation:
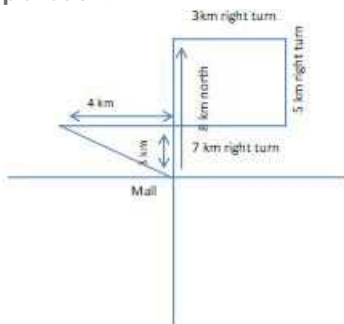
So, Shortest distance $= \sqrt{4^2 + 3^2} = 5.$

B is correct choice.

Question 28

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

A

B

C

D

Answer: C

Explanation:

In each part of image on line is added to next by upside down.

So,in the last part of image 5 lines will appear from upside down.

C is correct choice.

Question 29

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

A   NOITCARF

B   CTOINAFR

C   CTIONAFR

D   NOTICARF

Answer: A

Explanation:

```
PRODUCT  ──────→  TCUDORP  ══➤  FRACTION
                                    │
                                    ↓
                                 NOITCARF
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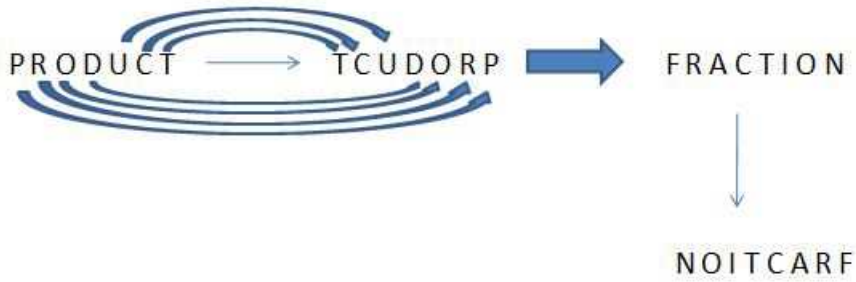
So, A is correct choice.

Question 30

Three different positions of the same dice are shown. What will be the number on the face opposite to the side having '1'?
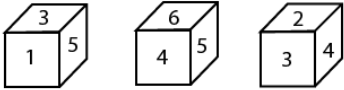
A 3

B 6

C 2

D 4

Answer: D

Explanation:
3 has two conjugate side with number 4 and 2.It means 1 can have either 4 or 2 on its opposite side.

But, 4 has two conjugate numbers 5 and 6. And 5 is adjacent to 3.

It means 4 is opposite to 1.

D is correct choice.

Question 31

In a certain code language. TANK is written as 7-26-1346. How will CARGO be written as in the same code language?

A 24-26-9-20-15

B 24-6-18-20-12

C 24-26-9-20-12

D 23-01-9-20-12

Answer: C

Explanation:
$TANK \longrightarrow$

$T = 27 - 20 = 7.$ (in conversion table $T = 20$)

Similarly, $A = 27 - 1 = 26.$

$N = 27 - 14 = 13.$

$K = 27 - 11 = 16.$

Similarly,

$CARGO \longrightarrow$

$C = 27 - 3 = 24.$

$A = 27 - 1 = 26.$

$R = 27 - 18 = 9.$

$G = 27 - 7 = 20.$

$O = 27 - 15 = 12.$

So, C is correct choice.

Question 32

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.
Needle : Sew

A Pen : Pencil

B Chisel : Carve

C Axe : Handle

D Gun : Bullet

   Answer: B

Explanation:

$Needle \longrightarrow Sew$: $Needle\ is\ used\ for\ Sewing.$

$Pen : Pencil \longrightarrow Pen\ \&\ Pencil\ are\ used\ for\ writing\ purpose.$

$Chisel : Carve \longrightarrow Chisel\ is\ used\ for\ making\ Carve.$

$Axe : Handle \longrightarrow Axe\ has\ a\ handle\ to\ hold\ it.$

$Gun : Bullet \longrightarrow Bullets\ are\ used\ in\ Gun.$

So, B is correct.

Question 33

Select the option that is related to the third number in the same way as the second number is related to the first number.
l2 : 72 :: 26 : .....

A 160

B 156

C 155

D 165

   Answer: B

Explanation:

In the set ,72 is 6 times of 12. Similarly , 156 is 6 times of 26.

So, B is correct choice.

Question 34

Select the number-pair in which the two numbers are NOT related in the same way as are the two numbers of the given pair.
28:36

A 63 : 72

B 119 : 153

C 91 : 117

D 133 : 171

Answer: A

Explanation:
Following iteration is the pattern,

$28 : 36 \longrightarrow 4 \times 7 : 4 \times 9$

$63 : 72 \longrightarrow 9 \times 7 : 9 \times 8$

$119 : 153 \longrightarrow 17 \times 7 : 17 \times 9$

$91 : 117 \longrightarrow 13 \times 7 : 13 \times 9$

$133 : 171 \longrightarrow 19 \times 7 : 19 \times 9$

So, Option A is different from others.

Question 35

How many triangles are there in the following figure?
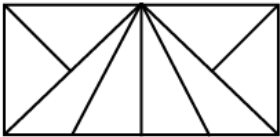
A 20

B 16

C 14

D 12

Answer: B

Explanation:
The bigger triangle inside the rectangle have 4 smaller pieces of triangle, 1 large triangle,

3 medium small size triangle and 2 medium size triangle.

And in the corners of the rectangle , 4 smaller size of triangle and 2 medium size triangle is there.

So, a total of $((4 + 3 + 2 + 1) + 4 + 2) = 16$ pieces of triangle present in the diagram.

B is correct.

Question 36

**Select the Venn diagram that represents the correct relationship between the following classes.
Teachers, Singers, Mothers**

A

B

C

D
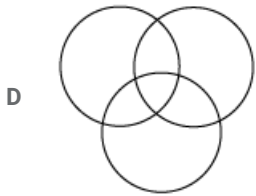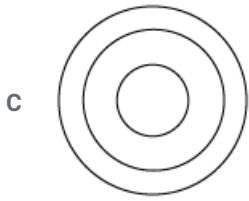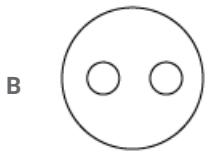
Answer: D

Explanation:

Some Teachers can be Mother, similarly, Some Mother can be Singers and also,

Some Singers can be Teacher.

Similarly, Some of them can have three these types common.

So, D denote the right choice.

Question 37

Select the correct alternative to indicate the arrangement of the following words in a logical and meaningful order.
1. Execution
2. Planning
3. Thinking
4. Feedback
5. Idea

A 3, 2, 5, 1, 4

B 3, 5, 2, 1, 4

C 2, 3, 4, 5, 1

D 4, 5, 2, 1, 3

Answer: B

Explanation:

$Thinking \longrightarrow Idea \longrightarrow Planning \longrightarrow Execution \longrightarrow Feedback$

So, B is correct.

Question 38

Three of the following four numbenpairs are alike in a certain way and one is different. Identify the different one.

A 23 : 29

B 3 : 5

C 17 : 21

D 11 : 13

    Answer: C

Explanation:

Option A,B and D have set of prime numbers.

But ,in option C 17 is prime number but 21 is composite number.

So, set in option C is different from other options.

C is right choice.

Question 39

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

A 33

B 27

C 25

D 15

    Answer: C

Explanation:

Difference between any two numbers of the set (33,27,15) is a multiple of 6.

But, 25 does not belong to the same category.

So, C is correct choice.

Question 40

The sequence of folding a piece of square paper and the manner in which the folded paper has been cut is shown. How would this paper look when unfolded?

A

B

C

D
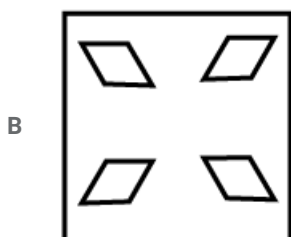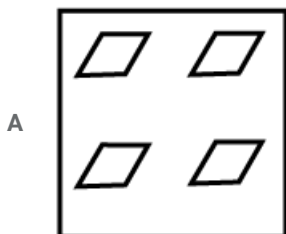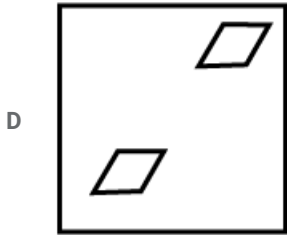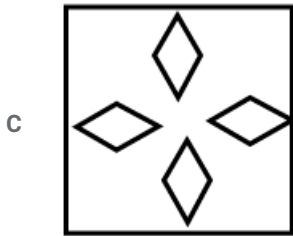
Answer: D

Explanation:

Two corners have folded first and then it folded again into one piece.

Then it cut in the middle.So, Only two cut in the middle will appear.

So, D is correct choice.

Question 41

Which two signs should be interchanged to make the given equation correct?
$15 \div 15 \times 10 - 10 + 5 = 15$

A $\div$ and $-$

B $\div$ and $\times$

C $\times$ and $-$

D $+$ and $-$

Answer: D

Explanation:

If we interchange $+ \; and \; -$,

$15 \div 15 \times \; 10 + 10 - 5$

$= 1 \times \; 10 + 10 - 5$

$= 10 + 10 - 5$

$= 20 - 5$

$= 15.$

D is correct choice.

Question 42

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

A MOQSU

B EGIKM

C NPRTV

D IKLPS

Answer: D

Explanation:
Every letter in MOQSU,EGIKM and NPRTV are in a distance of 2 letter.

But, letters in IKLPS are not in the same manner.

So, D is correct choice.

Question 43

Select the option in which the given figure is embedded.

A

B

C

D
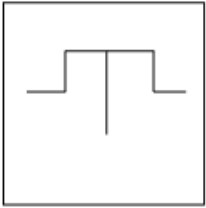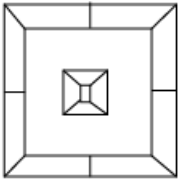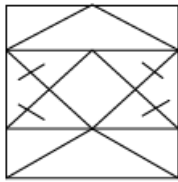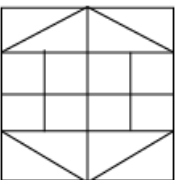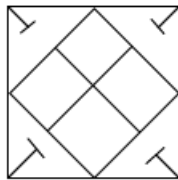
Answer: C

Explanation:
figure in the question can be extract from the figure inside the image in Option C

C is correct choice.

Question 44

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

$14 - 3 + 10 \times 5 \div 5$

A 65

B 48

C 45

D 40

   Answer: C

Explanation:
After rearranging,

$14 \times 3 - 10 \div 5 + 5$

$= 14 \times 3 - 2 + 5$

$= 42 - 2 + 5$

$= 47 - 2$

$= 45.$

C is correct choice.

Question 45

Which number will replace the question mark (?) in the following series?
60, 64, 32, 36, 18, ?

A 11

B 15

C 20

D 22

   Answer: D

Explanation:
It is an alternative series of (60,32,18) and (64,36,22).

$60 - 32 = 2 \times 14.$

$32 - 18 = 14.$

Similarly,

$64 - 36 = 2 \times 14.$

$36 - 22 = 14.$

D is correct choice.

Question 46

Select the Venn diagram that represents the correct relationship between the following classes.
Stationery, Pen, Nib

A

B

C

D
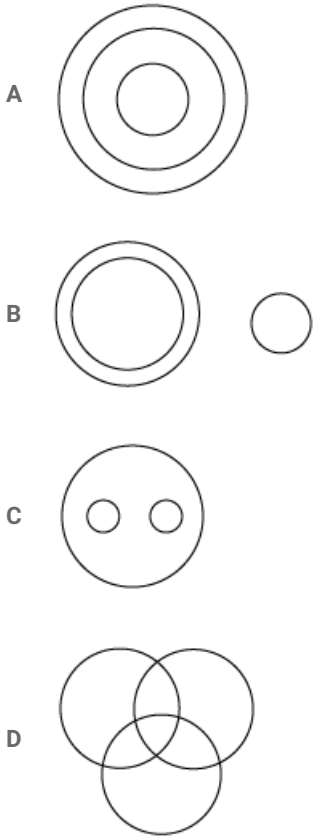
Answer: A

Explanation:

Every Nib is a part of Pen and Every Pen is a type of stationery tool.

So, Nib should comes under Pen and Pen should comes under Stationery.

So, A is correct choice.

Question 47

Which letter-cluster will replace the question mark (?) in the following series?
GXB, JVD, MTF, PRH, ?

A   RPJ

B   SPJ

C   SQJ

D   RQI

 Answer: B

Explanation:
Using conversion table,

$GXB = 7 + 24 + 2 = 33.$

$JVD = 10 + 22 + 4 = 36.$

$MTF = 13 + 20 + 6 = 39.$

$PRH = 16 + 18 + 8 = 42.$

Similarly, $SPJ = 19 + 16 + 10 = 45$.

So, 33,36,39,42,45 is in a series.

B is correct choice.

Question 48

Select the set of numbers that is similar to the following set.
(11, 16, 31)

A (19, 24, 31)

B (17, 22, 37)

C (29, 34, 41)

D (23, 28, 31)

Answer: B

Explanation:
$(11, 16, 31) \longrightarrow 11 + 5 = 16, 16 + 5 \times 3 = 31$.

Similarly, $(17, 22, 37) \longrightarrow 17 + 5 = 22, 22 + 5 \times 3 = 37$.

B is correct choice.

Question 49

Select the option that is embedded in the following figure.

A

B

C

D
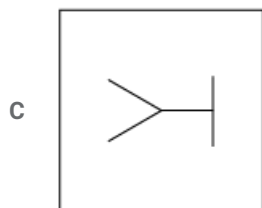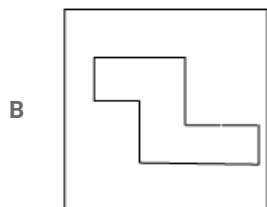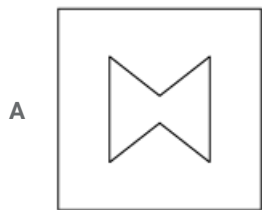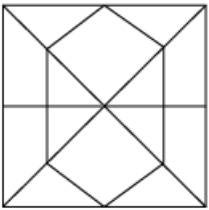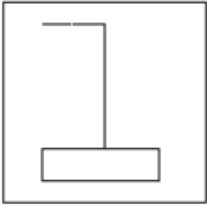
Answer: C

Explanation:
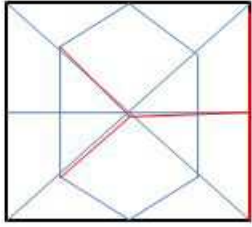
If we extract
deep red line
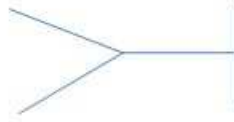
C is correct choice.

Question 50

Select the correct alternative to indicate the arrangement of the following words in a logical and meaningful order.
1. Childhood
2. Adulthood
3. Infancy
4. Old age
5. Adolescence

A 5, 1, 3, 2, 4

B 3, 1, 5, 2, 4

C 5, 4, 3, 2, 1

D 2, 1, 5, 3, 4

  Answer: B

Explanation:
Correct order should be,

$Infancy \longrightarrow Childhood \longrightarrow Adolescence \longrightarrow Adulthood \longrightarrow Old\ Age.$

B is correct.

General knowledge

Instructions
For the following questions answer them individually

Question 51

The merger of ..... and .... with Bank of Baroda will make it the third largest bank in India.

A   Dena Bank, Vijaya Bank

B   Allahabad Bank, Dena Bank

C   Dena Bank, Punjab National Bank

D   Punjab National Bank, Vijaya Bank

Answer: A

Question 52

In January 2019, ISRO announced that it would select over 100 students from across India and give them practical experience of how satellites are built under the new ....

A   Young Scientist Program

B   Young Genius Program

C   Smart Achiever Program

D   Smart Scientist Program

Answer: A

Question 53

Known as Ayesha to family and friends, this princess married Sawai Man Singh II Bahadur and was known to the world as ....

A   Maharani Durga Devi

B   Rani Sita Devi

C   Rani Vijaya Devi

D   Maharani Gayatri Devi

Answer: D

Question 54

.........., locally known as 'Vallam Kali', is a traditional game, mainly conducted during the harvest festival Onam in Kerala.

A   Boat races

B   Cock fights

C   Bull fights

D   Elephant races

Answer: A

Question 55

The Govemor of an Indian state generally holds ofiice for a period of .... years.

A 4

B 5

C 7

D 3

   Answer: B

Question 56

The Satya Shodhak Samaj was founded by:

A Jyotiba Phule

B Swami Dayanand Saraswati

C Swami Vivekanand

D Raja Ram Mohan Roy

   Answer: A

Question 57

Gautam Garnbhir made his One Day International debut in 2003 in ....

A Dhaka

B Mumbai

C Kolkata

D Colombo

   Answer: A

Question 58

In December 2018, India's heaviest satellite .... went into orbit on a French rocket to help boost broadband intemet services in India.

A GSAT-6

B GSAT-19

C GSAT-17

D GSAT-11

   Answer: D

Question 59

Saint Kabir got his spiritual training fiom a guru named ....

A Sarvananda

B Ramananda

C Chidananda Saraswati

D Muktananda

   Answer: B

Question 60

The Indian Government has banned the import of .... from China till April 23, 2019, or until further orders.

A Milk and milk products

B Vehicles

C Minerals

D Cotton

   Answer: A

Question 61

The theme for World Environment Day 2018 hosted in India was ....

A Go Wild for Life

B Connecting People to Nature

C Beat Plastic Pollution

D Reduce, Reuse, Recycle

   Answer: C

Question 62

The Peacock Throne was commissioned by ....

A Aurangzeb

B Shah Jahan

C Humayun

D Akbar

   Answer: B

Question 63

Which of the following is NOT a part of India's first indigenous anti-nuclear medical kit?

A Prussian blue tablet

B Anti-gamma ray skin ointment

C Ca-EDTA Respiratory Fluid

D   Saline solution

Answer: D

Question 64

The carbon-based substance used in modern day pencils is ....

A   Chaoite

B   Coal

C   Graphite

D   Silicon

Answer: C

Question 65

The National Food Security Act was passed in the year ....

A   2009

B   2011

C   2013

D   2014

Answer: C

Question 66

'The Royal Tombs of Golconda', 'The Snake-Charmer' and 'The Queen's Rival' are poems by:

A   Sarojini Naidu

B   Rajendra Prasad

C   Shashi Tharoor

D   Atal Bihari Vajpayee

Answer: A

Question 67

Who was the first recipient of Jnanpith Award?

A   Amitav Ghosh

B   Mahadevi Verma

C   Krishna Sobti

D   G. Sankara Kurup

Answer: D

Question 68

Manikamika Tambe is better knovm in history as ....

A   Jodhabai

B   Rani Padmini

C   Rani Laxmibai

D   Ahilyabai Holkar

   Answer: C

Question 69

Name the Congress leader who is known for his/her extraordinary oratory skills.

A   Rahul Gandhi

B   Jyotiraditya Scindia

C   Sonia Gandhi

D   Shashi Tharoor

   Answer: D

Question 70

Name the Chief Minister of Gujarat who did not take a single day off in the 13 years of service.

A   Shankarsingh Vaghela

B   Chimanbhai Patel

C   Narendra Modi

D   Keshubhai Patel

   Answer: C

Question 71

Sachin Tendulkar scored his 100^{th} century at .... stadium.

A   Wankhede Stadium

B   Lord's Cricket Grounds

C   Eden Gardens

D   Shere Bangla Cricket Stadium

   Answer: D

Question 72

.... is referred to as the 'Father of Indian Civil Aviation'.

A   Homi Bhabha

B   Jehangir Ratanji Dadabhoy Tata

C   Jamshedji Nusserwanji Tata

D   Parvez Damania

Answer: B

Question 73

The Wailing Wall is associated with:

A   Bahais

B   Jews

C   Shias

D   Catholics

Answer: B

Question 74

What is the approximate playing time of the full version of the Indian National Anthem?

A   48 seconds

B   62 seconds

C   52 seconds

D   68 seconds

Answer: C

Question 75

.... created a new system of musicology called 'Indraprastha Mata' or 'Chaturdandi Sampradaya'.

A   Bhimsen Joshi

B   Amir Khusro

C   Ustad Ghulam Ali

D   Ali Azmat

Answer: B

Question 76

The minimum amount to be remitted through RTGS (Real Time Gross Settlement) is ₹ ....

A   3,00,000

B   1,000

C   2,00,000

D   50,000

Answer: C

Question 77

'Paithani' is a form of .... from Maharashtra.

A   Dance

B   Textile weaving

C   Agriculture

D   Classical music

Answer: B

Question 78

Mucosa, Submucosa, Muscularis and Adventitia are the four layers of the .... wall.

A   Stomach

B   Throat

C   Gastrointestinal

D   Nasal

Answer: C

Question 79

Periyar Wildlife Sanctuary is located in .... state

A   Uttar Pradesh

B   Kerala

C   Madhya Pradesh

D   Maharashtra

Answer: B

Question 80

Chandrayaan-1, India's first mission to the Moon was launched from ....

A   Srikalahasti

B   Srikakulam

C   Sriharikota

D   Srisailam

Answer: C

Question 81

.... states that 'bad money drives good money out of circulation'.

A   Gresham's Law

B   Campbell's Law

C   Engel's Law

D   Baxter's Law

Answer: A

Question 82

.... is the first Indian to win a Grand Prix in motorsport at the 2017 New Zealand Grand Prix.

A   Narain Karthikeyan

B   Jehan Daruvala

C   Karun Chandhok

D   Rajini Krishnan

Answer: B

Question 83

Svetambara and Digambara are two sects of the .... community.

A   Zoroastrian

B   Buddhist

C   Maratha

D   Jain

Answer: D

Question 84

Who is the author of Godaan?

A   Harivanshrai Bachchan

B   Munshi Premchand

C   Shrilal Shukla

D   Manmohan Shyam Joshi

   Answer: B

Question 85

.... was Independent India's first individual Olympic medallist.

A   Norman Pritchard

B   Karnam Malleswari

C   KD Jadhav

D   Leander Paes

   Answer: C

Question 86

As per the Constitution of India, Supreme Court Judges in India retire at the age of ....

A   60

B   75

C   65

D   50

   Answer: C

Question 87

Researchers of Kerala-based Amrita University in collaboration with the Sikkim State Disaster Management Authority have developed a real-time .... This system can help save lives and prevent loss to property by issuing advance alerts.

A   Snow warning system

B   Rain warning system

C   Landslide warning system

D   Earthquake warning system

   Answer: C

Question 88

Which ex-Prime Minister of India is known as "Chanakya of Modern India"?

A   IK Gujral

B   VP Singh

C   PV Narasimha Rao

D   Charan Singh

Answer: C

Question 89

Which one of the following is INCORRECTLY matched?

A   Atharva-Veda — Knowledge of the magic formulas

B   Rig Veda — Knowledge of the Hymns of Praise

C   Yajur-Veda — Knowledge of the sacrificial formulas

D   Sama-Veda — Knowledge of Science

Answer: D

Question 90

Who among the following has held all the three posts of Chief Economic Advisor to the Government of India, Governor of Reserve Bank of India and Head of Planning Commission in his bureaucratic career?

A   Subramanian Swamy

B   P Chidambaram

C   Arun Jaitley

D   Manmohan Singh

Answer: D

Question 91

.... is a global analytical company that provides ratings and research as well as risk and policy advisory services.

A   ICSID

B   OPEC

C   IFC

D   CRISIL

Answer: D

Question 92

Which of the following countries are India's neighbours?

A   Pakistan, Sri Lanka, Nepal, Bangladesh

B   Pakistan, Singapore, Sri Lanka, Bhutan

C   Pakistan, Nepal, Indonesia

D   Pakistan, Australia, Russia

Answer: A

Question 93

Chhatrapati Shivaji and Soyarabai named their son ....

A   Narayan

B   Shahaji

C   Sharnbhaji

D   Rajaram

  Answer: D

Question 94

India's oldest operating refinery is at ....

A   Jamnagar

B   Paradip

C   Digboi

D   Panipat

  Answer: C

Question 95

What is 'Roadeo'?

A   A robot that helps maintain traffic

B   A robot that fills potholes

C   A robot that cleans city roads

D   A robot that drives taxis

  Answer: A

Question 96

.... holds a major stake in Numaligarh Refinery Limited.

A   Hindustan Petroleum

B   Bharat Petroleum

C   Chennai Petroleum

D   Reliance Petrochemicals

  Answer: B

Question 97

In January 2019, NASA's planet—hunting spacecraft Tess discovered a new planet three times the size of Earth. NASA named this planet ....

A   HD 31794b

B   HD 41479b

C   HD 21749b

D   HD 15149b

Answer: C

Question 98

Which of the following is NOT a crossing point along the Indo-Pak border?

A   Attari

B   Wagah

C   Sikar

D   Ganda Singh Wala

Answer: C

Question 99

Ask Disha is ....

A   a navigation website

B   a helpline set up by the Ministry of Road Transport and Highways

C   a chatbot on the Indian Railways website

D   a web mapping service that provides real-time traffic conditions

Answer: C

Question 100

In September 2018, ... signed a memorandum of understanding with India to share its expertise on Gaganyaan, ISRO's first manned space mission.

A   Germany

B   Italy

C   Spain

D   France

Answer: D

Quant

Question 101

$\frac{9}{40}$ **converted to percentage is:**

A $2\frac{1}{2}$

B   2

C   22

D $22\frac{1}{2}$

Answer: D

Explanation:

$\frac{9}{40}$ in percentage

$= \frac{9}{40} \times 100$

$\frac{45}{2} = 22\frac{1}{2}\%$

Question 102

Four bells ring simultaneously at a certain instant. Thereafter they ring at intervals of 6, 8, 10 and 12 seconds respectively. In how many minutes will they ring together again for the first time?

A   2 minutes

B $2\frac{1}{4}$ minutes

C   1 minute

D $1\frac{1}{2}$ minutes

Answer: A

Explanation:

The LCM of 6,8,10,12 is 120

Thus the bells will ring simultaneously after 120 second=2 minutes.

Question 103

The number 106974 is divisible by which of the single digit numbers:

A   2, 3, 6 and 7 only

B   2, 3 and 7 only

C   2, 3 and 4 only

D 2 and 3 only

Answer: A

Explanation:

Factor of 106974=$2 \times 3 \times 3 \times 3 \times 7 \times 283$

2, 3, 6 and 7 only

Question 104

ABCD is a cyclic quadrilateral such that AB is a diameter of the circle circumscribing it and angle ADC = $148°$. Then angle BAC is equal to:

A $60°$

B $58°$

C $40°$

D $150°$

Answer: B

Question 105

The face value of the digit 6 in 16008 is:

A 6

B 600

C 6000

D 60

Answer: A

Explanation:

The face value of a digit is the digit itself, at whatever place it may be. It is unchangeable and definite. But place value changes according to the digit's place.

So Face value of 6 is 6

Question 106

The given bar chart shows population of 4 different states in 3 years (in crores).
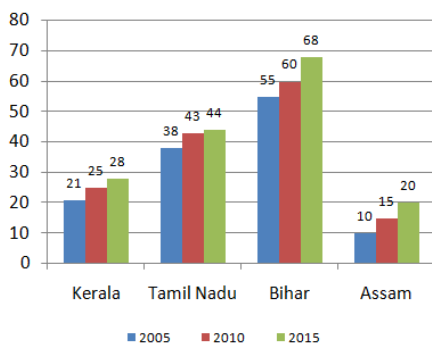
In the given bar-chart, what is the ratio of increase in population in Bihar between 2005 and 2010 to that between 2010 and 2015?

A 3 : 7

B   7 : 3

C   5 : 8

D   8 : 5

    Answer: C

Explanation:

Population of bihar in 2005=55

Population of bihar in 2010=60

Population of bihar in 2015=68

increase in population from 2005 to 2010=60-55=5

increase in population from 20010 to 2015=68-60=8

Ratio=8:5

Question 107

$\frac{\cosec 31^\circ}{\sec 59^\circ}$ **is equal to:**

A   1

B   3

C   0

D   2

    Answer: A

Question 108

A man covers the first 210 km of a journey at 60 km/h and the next 198 km at 66 mm. The average speed for the whole journey is:

A   64 km/h

B   63 km/h

C   62.8 km/h

D   68.5 km/h

    Answer: C

Explanation:

Total distance to cover = **408km**.

Distance covered with speed 60 km/h = **210 km**

Distance covered with speed 66 km/h = **198 km**

Formula used :

Speed= distance /time, time = distance /speed

Average speed = total distance /total time

Solution :

Time required to cover first 210 km with speed 60km/h=210/60= **3.5 hours**

Time required to cover 198km distance with speed 66km/h=198/66= **3 hour**

Total time of journey = **6.5hours**

Average speed = 408/6.5= 62.8 km/h

Question 109

Three pipes A, B and C can fill a cistern in 15, 24 and 36 minutes respectively. If pipe D can drain a full tank in 1hour. how long will it take for the tank to be filled if all the four pipes are kept open together?

A $9\frac{1}{8}$ hours

B $5\frac{12}{25}$ hours

C $7\frac{2}{3}$ hours

D $8\frac{16}{43}$ hours

Answer: D

Explanation:

Pipes A,B and C can fill the tank in 15, 24 and 36 minutes respectively. Therefore,

part filled by pipe A in 1 Minute = $\frac{1}{15}$

part filled by pipe B in 1 Minute = $\frac{1}{24}$

part filled by pipe C in 1 Minute= $\frac{1}{36}$

Pipe D can empty the tank in 1 hours=60minutes. Therefore,

part emptied by pipe D in 1 Minute= $\frac{1}{60}$

Net part filled by Pipes A,B,C together in 1Mnutes

$\frac{1}{15} + \frac{1}{24} + \frac{1}{36} - \frac{1}{60} = \frac{43}{360}$

i.e., the tank can be filled in= $\frac{360}{43} = 8\frac{16}{43}$

Question 110

From the top of a hill 96 m high. the angles of depression of two cars parked on the same side of the hill (at same level as the base of the hill) are $30°$ and $60°$ respectively. The distance between the cars is:
(use $\sqrt{3} = 1.73$ and round off to nearest whole number.)

A 165 m

B 111 m

C 220 m

D 243 m

Answer: B

Question 111

The sum of three numbers is 777. The ratio between the first two numbers is 7: 9 and the ratio between the second and third number is 3 :7. The second number is:

A 252

B 63

C 189

D 147

  Answer: C

Explanation:
Let the no.s be a , b and c

a : b = 7 : 9

b : c = 3 : 7

a : b : c = 21 (7 × 3) : 27 (9 × 3) : 63 (7 × 9) = 21 : 27 : 63

Sum of three no.s = 777

=> 21x + 27x + 63x = 777

=> 111x = 777 => x = 7.

Hence , no.s are 21x = 21 × 7 = *147* , 27x = 27× 7 = *189* , 63 × 7 = *441.*

Question 112

The given pie-chart shows the taxable income for A, B, C and D in lakhs of rupees.
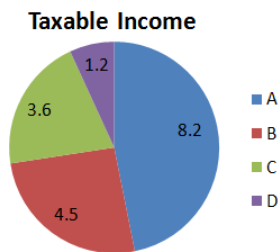
This chart shows the tax paid for the above taxable income by A, B, C and D in lakhs of rupees.
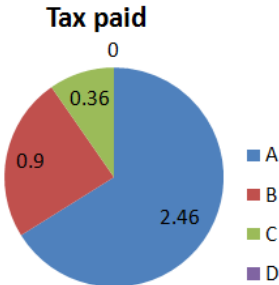
In the given pie-chart, what is the percentage of tax charged for A?

A 30%

B 15%

C 40%

D 20%

  Answer: A

Explanation:
TAxable income of B=8.2

Tax paid=2.46

$\% = \dfrac{taxpaid}{taxableincome} = \dfrac{2.46}{8.2} = 30\%$

Question 113

Two numbers are in the ratio 4 : 9. If both the numbers are increased by 12, the ratio becomes 11 :21. The sum of the original numbers is:

A 128

B 64

C 52

D 104

   Answer: D

Explanation:

Let the numbers be 4x and 9x.

4x+12 : 9x+12 = 11 : 21, or

21(4x+12) = 11(9x+12), or

84x+252 = 99x+132, or

15x = 120.

x=8

4x=32

9x=72

Sum=32+72=104

Question 114

The given pie-chart shows the taxable income for A, B, C and D in lakhs of rupees.
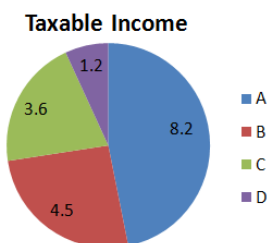
This chart shows the tax paid for the above taxable income by A, B, C and D in lakhs of rupees.
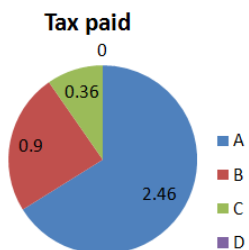
In the given pie-chart. if B's taxable income was 12% more. how much tax would he have paid then?

A 0.9

B 10.8

C 1.008

D 0.108

   Answer: C

Explanation:

B's taxable income=4.5lakh

if B's taxable income was 12% more.

then B's taxable income= $\frac{1.12}{100} \times 4.5 = 5.04$

TAx paid= $\frac{(5.04 \times 0.9)}{4.5} = 1.008$

Question 115

If $(x-6)^3 + (x-4)^3 + (x-5)^3 = (3x-15)(x-4)(x-6)$, then what is the value of x?

A 3

B 7

C 18

D 5

Answer: D

Question 116

An 18 m deep well with diameter 7 m is dug and the earth from digging is spread evenly to form a platform 18 m $\times$ 14 m. The height of the platform is:

A 2.6 m

B 3.05 m

C 2.75 m

D 3.2 m

Answer: C

Explanation:

Diameter of the well = 7 m

Radius of the well = 7/2 m

Depth of the well = 18 m

Volume of the mud dug from the well = $\pi r^2 h$

= 22/7 × 7/2 × 7/2 × 18

= 693 m3

Area of the rectangular plot where the mud is spread = 18 x 14

Let the height of the plotfarm be h metres.

Volume of the plot form = Volume of the mud taken from the well

18 x 14 x h =693

h = $\frac{693}{22 \times 14}$

h = 2.75 m

Question 117

Two pipes A and B can fill a tank in 20 minutes and 30 minutes respectively. If only pipe B was kept open in the beginning for $\frac{1}{5}$ th of the total time and then. both pipe A and B were kept open for the remaining time. How many minutes did it take the pipes to fill the tank?

A $\quad 13\frac{5}{23}$

B $\quad 16\frac{5}{23}$

C $\quad 16\frac{1}{23}$

D $\quad 13\frac{1}{23}$

Answer: D

Explanation:
Pipe B 1 hr work=1/30
Pipe A 1 hr work=1/20
let total time required to fill the tank =xhrs
since pipe B is open for $\frac{1}{5}$ th of x so work done by pipe B in $\frac{1}{5}$ th hrs =$\frac{x}{150}hrs$
and work done by pipe (A+B) in remaining $\frac{4}{5}$ th hrs=$\frac{4x}{60} = \frac{x}{15}$ hrs
so total work done is =$\frac{x}{150} + \frac{x}{15}$
1=$\frac{11x}{150}$
$x = \frac{150}{11}$

Question 118

If the area of a regular hexagon is $108\sqrt{3}cm^2$, its perimeter is:

A $\quad$ 24 cm

B $\quad 36\sqrt{2}cm$

C $\quad 28\sqrt{3}cm$

D $\quad 42\sqrt{3}cm$

Answer: B

Explanation:
The formula for the area of a regular hexagon is

$$A = \frac{3\sqrt{3}s^2}{2}$$

where s is the length of a side of the regular hexagon

given area $108\sqrt{3}cm^2$

$108\sqrt{3}cm^2 = \frac{3\sqrt{3}s^2}{2}$

$72 = s^2$

$s = 6\sqrt{2}$

The perimeter of the regular hexagon is $P = 6 \times s = 6 \times 6\sqrt{2} = 36\sqrt{2}$

Question 119

A bucket is drawn from a well by means of a rope which is wound around a wheel of radius 48 cm. If the bucket ascends in 1 minute 12 seconds at a speed of 1.2 m/sec. find the length of the rope.

A 8.64 cm

B 86.4 cm

C 864 cm

D 8640 cm

   Answer: D

Explanation:

Time of ascent = 1 minute 12 seconds = 72 seconds

The uniform speed at which the bucket ascents = 1.2 m/s.

So, the height to which the bucket ascents = (72 × 1.2) m

Diameter of the wheel, d = 48 cm = 0.48 m

In each revolution of the wheel the bucket ascents a height of its circumference i.e. pi × d = (22/7) × 0.48 m

Therefore, the number complete revolution made by the wheel by ascending the bucket up to the height of (72 × 1.2) m = (72 × 1.2) / (22/7 × 0.48) = 4 × 10 = 86.40m=8640cm

Question 120

A paper in the form of a rectangle is cut diagonally to form two triangles. If the diagonal measures $4\sqrt{5}$ cm and the length is twice the breadth, the area of the rectangle is:

A 54 cm^2

B 32 cm^2

C 72 cm^2

D 80 cm^2

   Answer: B

Explanation:
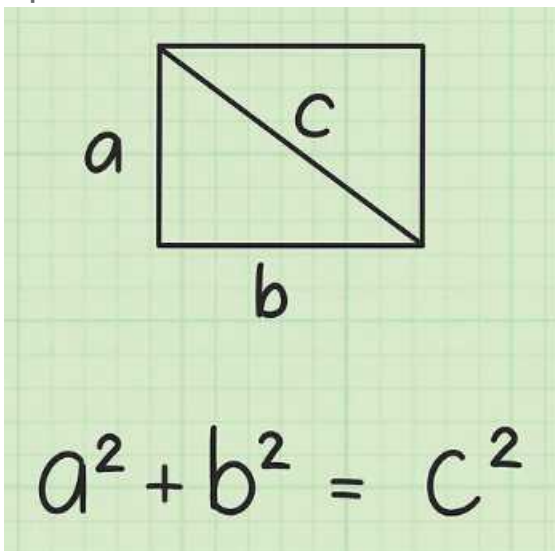
given

c diagonal ,a is breadth b is length of triangle

c=$4\sqrt{5}$, b=2a

To find the length and width we use the Pythagorean Theorem:

$c^2 = a^2 + b^2$

$(4\sqrt{5})^2 = a^2 + 4a^2$

$80 = 5a^2$

$a = 4$

b=2

Area of rectangle=$width \times length = 4 \times 2 = 8cm^2$

Question 121

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

A   22

B   16

C   26

D   14

Answer: B

Explanation:

$$\left(x + \frac{1}{x}\right) = 3\sqrt{2}$$

$$\left(x + \frac{1}{x}\right)^2 = (3\sqrt{2})^2$$

$$\left(x + \frac{1}{x}\right)^2 = x^2 + \frac{1}{x^2} + 2 = 18$$

$$18 = x^2 + \frac{1}{x^2} + 2$$

$$x^2 + \frac{1}{x^2} = 16$$

Question 122

The line graph shows the temperature on four Sundays of three cities.
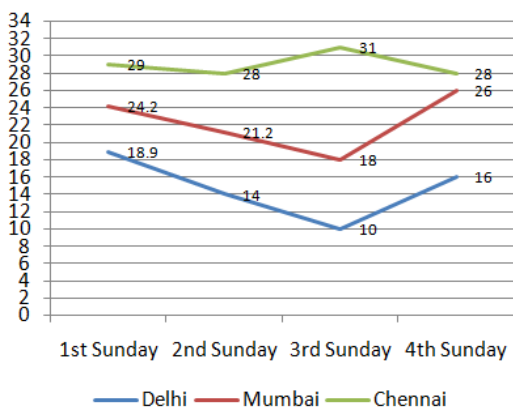
In the given line graph. what was the average temperature on the 1^{st} Sunday in all the three cities? (rounded to first decimal)

A   21.2

B 25.4

C 23

D 24

   Answer: D

Explanation:

temperature on the 1^{st} Sunday in delhi=18.9

temperature on the 1^{st} Sunday in mumbai=24.2

temperature on the 1^{st} Sunday in chennai=29

Average of all cities's temperature=\frac{(18.9+24.2+29}{3}=24 $$

Question 123

A dealer allows a discount of 12% on the marked price. If the selling price is ₹924, the discount is:

A ₹126

B ₹110.90

C ₹114

D ₹119.20

   Answer: A

Explanation:

let the Marked price be x

now , 12% of x $= \frac{x}{100} \times 12 = \frac{12x}{100}$

it is sold for rs 924

that means ,

$x - \frac{12x}{100} = 924$

$\frac{100-12x}{100} = 924$

$\frac{88x}{100} = 924$

$88x = 92400$

$x = 1050$

hence the Marked price of the article is raining 1050

Dscount price=1050-924=126

Question 124

What is the angle of elevation of the sun from the top of a vertical pole when its height is equal to the length of its shadow?

A 90°

B 60°

C 45°

D 30°

Answer: C

Question 125

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 ∠APB = $100°$, then ∠OAB is equal to:

A 25°

B 20°

C 35°

D 50°

Answer: D

Explanation:
Since OA is perpendicular to PA and also, OB is perpendicular to PB

∠APB + ∠AOB = 180°

100°+ ∠AOB = 180°

∠AOB = 180° - 100° = 80°

In △AOB,

OA = OB = radii of same circle

∠OAB = ∠OBA = x (say)

Again, ∠OAB + ∠OBA + ∠AOB = 180°

x +x + 80° = 180°

2x = 180° - 80° = 100°

X = 0°

Hence, ∠OAB =50°

Question 126

The line graph shows the temperature on four Sundays of three cities.
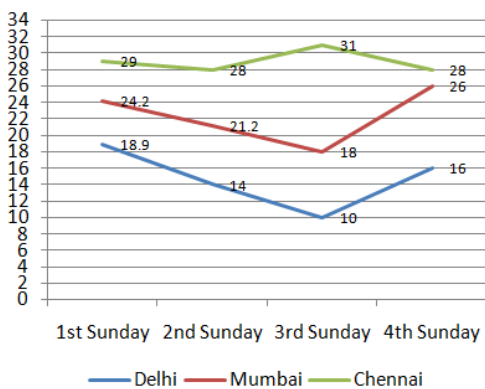
In the given line graph. what was the difference in temperature between Delhi and Chennai on the 3^{rd} Sunday?

A 21

B 8

C   17

D   13

   Answer: A

Explanation:

temperature of Delhi on the 3^{rd} Sunday=10

temperature of Chennai on the 3^{rd} Sunday=31

Difference=31-10=21

Question 127

Find the compound interest at the rate of 7% pa compounded annually for two years on the principal that yields a simple interest of ₹ 9450 for 3 years at 7% pa.

A   ₹ 12,678.40

B   ₹ 6,520.50

C   ₹ 12,345.20

D   ₹ 10,127

   Answer: B

Explanation:

Given SI=9450

Time=3 year

Rate of interest=7%

we know

$S.I = \frac{PRT}{100}$

$9450 = \frac{P \times 7 \times 3}{100}$

$945000 = P \times 21$

$P = 45000$

CI for 3 year

$C.I = P(1 - \frac{R}{100})^3 - P$

$= 15000(1 - \frac{7}{100})^3 - 15000$

$= 15000((\frac{93}{100})^3 - 1)$

$= 6520.50$

Question 128

What is 34% of 1.2 km

A   4,080 cm

B   4,08,000 cm

C   408 cm

D   40,800 cm

   Answer: D

Explanation:

we know 1Km=1000cm

34% of 1.2 km= $\frac{34}{100} \times 12000 = 40,800 cm$

Question 129

The selling price of an article is ₹ 2,28,528. A shopkeeper marks its price 15% above its cost price and gives a discount of 10%. The cost price is:

A ₹2,20,800

B ₹2,58,740

C ₹2,87,390

D ₹2,18,650

Answer: A

Question 130

A can do $\frac{1}{5}$ th of a work in 4 days and B can do $\frac{1}{6}$ th of the same work in 5 days. In how many days they can finish the work, if they work together?

A 12

B 20

C 15

D 30

Answer: A

Question 131

The compound interest calculated yearly on a certain sum of money for the second year is ₹ 1,320 and for the third year is ₹ 1,452. The principal amount at the start of the first year is:

A ₹13,200

B ₹12,970

C ₹12,650

D ₹12,000

Answer: D

Question 132

The greatest number of 5 digits that is exactly divisible by each of 8, 12, 15 and is:

A 99950

B 99940

C 99980

D 99960

    Answer: D

Explanation:
The largest five digit number is 99999

LCM of 8,12,15,=120

Divide 99999 by 120 so that we get the remainder is 39

Now, Subtract the remainder from 99999-39=99960

Question 133

$13 \div \{4 \, of \, 2 - 3 + 4 \times (6 - 4)\}$ is equal to:

A $-2\frac{1}{13}$

B 1

C 0

D 1.3

    Answer: B

Explanation:

$13 \div \{4 of 2 - 3 + 4 \times (6 - 4)\}$

$13 \div \{4 \times 2 - 3 + 4 \times (6 - 4)\}$

$13 \div \{5 + 4 \times (2)\}$

$13 \div 13 = 1$

Question 134

The given pie-chart shows the taxable income for A, B, C and D in lakhs of rupees.
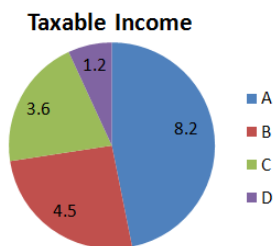
Taxable Income

This chart shows the tax paid for the above taxable income by A, B, C and D in lakhs of rupees.
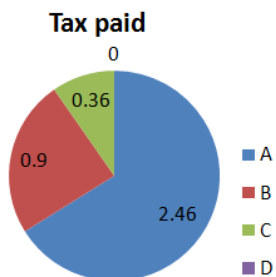
Tax paid

In the given pie-chart. what is the overall tax percentage for all four?

A 17.2%

B 15%

C 21.3%

D 19.5%

Answer: C

Explanation:
Total tax paid by A, B, C and D=2.46+0.9+0.36=3.72

Total taxable income of A, B, C and D=8.2+4.5+3.6+1.2=17.5

overall tax percentage for all four=$\frac{3.72}{17.5} \times 100 = 21.3\%$

Question 135

If $a^3 - b^3 = 216$ and $a - b = 6$,then $(a+b)^2 - ab$ is equal to:

A 42

B 36

C 38

D 52

Answer: B

Explanation:
If $a^3 - b^3 = 216$ and $a - b = 6$

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

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

$(a+b)^2 - ab = a2 + ab + b2$

$216 = 6(a^2 + ab + b^2)$

$(a^2 + ab + b^2) = \frac{216}{6} = 36$

Question 136

The average weight of six children is 32.8 kg. If two more children weighing 26.5 kg and 28.3 kg are added to the group, what would be the new average weight in kilograms?

A 31.45

B 30.3

C 29.2

D 28.9

Answer: A

Explanation:
average weight of six children is 32.8 kg

Total weight of six children=$32.8 \times 6 = 196.8$

If two more children weighing 26.5 kg and 28.3 kg are added to the group

total children=8

total new weight=196.8+26.5+28.3=251.6

Average=$\frac{total\ weight}{total\ children} = \frac{251.6}{8} = 31.45$

Question 137

A and B can finish a work together in $3\frac{2}{3}$ days. C and D can finish the same work in $3\frac{1}{7}$ days. If A, B, C and D do the work together. how long will it take for them to finish half of the work?

A $1\frac{1}{13}$ days

B $\frac{8}{13}$ days

C $\frac{2}{13}$ days

D $\frac{11}{13}$ days

   Answer: D

Explanation:

A + B = $\frac{11}{3}$ days

C + D = $\frac{22}{7}$ days

Let's take total work as LCM of $\frac{11}{3}$ and $\frac{22}{7}$ = 22 units

Their unit work in a day will be

A + B = $\frac{22}{\frac{11}{3}}$ = 6 units/day

C + D = $\frac{22}{\frac{22}{7}}$ = 7units/day

Add these equations

A + B + C+D = 6+7=13 units per day

Therefore to complete 22 units they'll take a time of

$\frac{22}{13}$

for half work i.e 11 unit

$= \frac{11}{13}$

Question 138

The area of a right angled triangle having base 24 cm and hypotenuse 25 cm is:

A 92 cm^2

B 72 cm^2

C 108 cm^2

D 84 cm^2

   Answer: D

Explanation:
We know that;
Area of right angle triangle = 1/2 × base × height (perpendicular)
And
According to Pythagoras theorem :
H² = P² + B²

Here,
Base (B) = 24 cm
Hypotenuse (H) = 25 cm

Now,
According to Pythagoras theorem....
P² = H² - B²

=> P = √ (H² - B²)

=> P = √ (25² - 24²)

=> P = √ (625 - 576)

=> P = √ 49

=> Perpendicular = 7 cm

Now,
Area = 1/2 × B × P

= 1/2 × 24 × 7

= 84 cm² Answer

Question 139

The given bar chart shows population of 4 different states in 3 years (in crores).
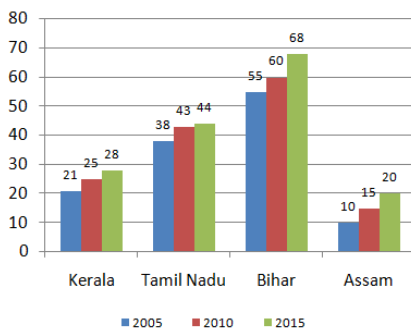
In the given bar-chart. which state has had the maximum population growth in 2015 compared to 2005.

A   Assam

B   Tamil Nadu

C   Bihar

D   Kerala

   Answer: A

Explanation:
Population increase in Kerala from 2005 to 2015=28-21=7

% increase in population= $\frac{7}{21} \times 100 = 33.3\%$

Population increase in Tamilnadu from 2005 to 2015=44-38=6

% increase in population= $\frac{6}{38} \times 100 = 16\%$

Population increase in Bihar from 2005 to 2015=68-55=13

% increase in population= $\frac{13}{55} \times 100 = 23.3\%$

Population increase in Assam from 2005 to 2015=20-10=10

% increase in population= $\frac{10}{20} \times 100 = 50\%$

Question 140

A 230 m long train has to cross a platform of length 750 m. If the train is running at a speed of 72 km/h. the time taken is:

A   49 seconds

B   58 seconds

C   64 seconds

D   72 seconds

Answer: A

Explanation:
Length of train=230 m

Length of platform=750 m

Speed of train=72 km/h

convert in m/s multiply by 5/18= $72 \times \frac{5}{18} = 20m/s$

Time= $\frac{distance}{time} = \frac{(750+230)}{20} = \frac{780}{20} = 49 second$

Question 141

The given bar chart shows population of 4 different states in 3 years (in crores).
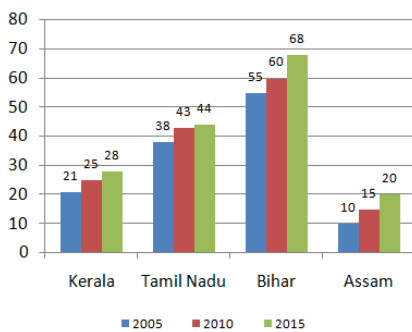
In the given bar-chart, what is the population growth (in crores) in total in states Kerala and Tamil Nadu for the period between 2005 and 2015?

A   13

B   9

C   10

D   11

Answer: A

Explanation:

Total population of Kerala and Tamil Nadu together in year 2005=21+38=59

Total population of Kerala and Tamil Nadu together in year 2015=28+44=72

Increase population from 2015 to 2005=72-59=13

Question 142

The ratio between a base angle and a vertical angle of an isosceles triangle (base angles being equal) is 2 :5. The vertical angle is:

A   140°

B   40°

C   100°

D   80°

  Answer: C

Explanation:
Angles are in the ratio 2:2:5

Let x is common factor.

Then angles are 2x, 2x and 5x ;

sum of angles = 2x+2x+5x = 9x = 180 or x = 20;

Hence angles are 40, 40 and 100

Question 143

The length of the longest pole that can be placed in a room 16 m long, 8 m wide and 11 m high is:

A   20 m

B   21 m

C   19 m

D   18 m

  Answer: B

Explanation:
Longest rod that can be placed in a room is nothing but its diagonal.
Length of diagonal of a cuboid = $\sqrt{(l^2 + b^2 + h^2)}$
Length of longest rod
= √(16^2 + 8^2 + 11^2) m

= √(256 + 64 + 121) m

= √441 m
= 21 m

Question 144

If the selling price of an article is $1\frac{2}{5}$ of its cost price, the percentage gain is.

A   47

B   40

C 20

D 25

   Answer: B

Explanation:
Let the cp be x.
SP = 7/5 of x
= 7x/5
Profit = SP - CP
= 7x/5- x
= 2x / 5
Profit percent = $\frac{profit}{cp} \times 100$
= $\frac{\frac{2x}{5}}{x} \times 100$
Ans.= 40%

Question 145

The smallest number that should be added to 8212 to obtain a perfect square is:

A 123

B 69

C 54

D 112

   Answer: B

Explanation:
Find the least number which must be added to 8212 to obtain a perfect square.

Solution :

$\sqrt{8212} = 90.62$

since the square root of given number is 90.62

so, the perfect square root will be 91

so, $91 \times 91 = 8281$

Thus

So, the least number which must be added to 8212 = 8281-8212

= 69

Hence,the least number which must be added to 8212 to obtain a perfect square is 69

Question 146

Salary of A increased by 8% in the year 2015 as compared to 2014 and decreased by 6% in the year 2016 as compared to 2015. If his salary was ₹ 2,34,778 in 2016, his salary (round ofi to nearest whole number) in 2014 was:

A ₹2,31,263

B ₹2,34,987

C ₹2,38,347

D ₹2,36,402

   Answer: A

Question 147

The line graph shows the temperature on four Sundays of three cities.
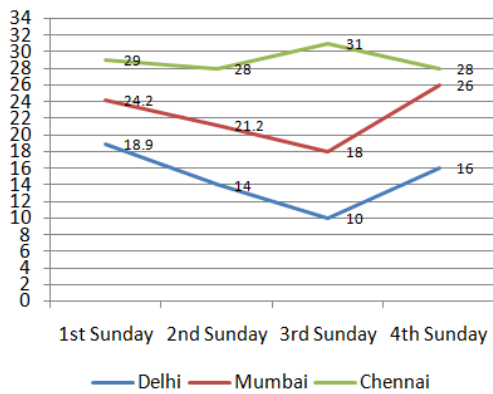
In the given line graph, when was the maximum temperature recorded in Chennai?

A 4^{th} Sunday

B 1^{st} Sunday

C 3^{rd} Sunday

D 2^{nd} Sunday

   Answer: C

Explanation:

temperature recorded in Chennai on 1st sunday=29

temperature recorded in Chennai on 2nd sunday=28

temperature recorded in Chennai on 3rd sunday=31

temperature recorded in Chennai on 4th sunday=28

Question 148

$1 + \frac{\tan^2 A}{1+\sec A}$ **is equal to:**

A $\sec A$

B $\operatorname{cosec} A$

C $\cos A$

D $\sin A$

   Answer: A

Explanation:

$1 + \frac{\tan^2 A}{1+\sec A}$

we know $\tan\theta = \frac{\sin\theta}{\cos\theta}$ & $\sec\theta = \frac{1}{\cos\theta}$

$1 + \frac{\frac{\sin^2 A}{\cos^2 A}}{1+\frac{1}{\cos A}}$

$1 + \frac{\sin^2 A}{(1+\cos A)\cos A}$

we know $\sin^2 A + \cos^2 A = 1$ use this

$1 + \dfrac{1-\cos^2 A}{(1+\cos A)\cos A}$

$1 + \dfrac{(1-\cos A)(1+\cos A)}{(1+\cos A)\cos A}$

$1 + \dfrac{(1-\cos A)}{\cos A}$

$1 + \dfrac{1}{\cos A} - 1$

$\sec A$

Question 149

A square piece of cardboard with side 12 cm has a small square of 2 cm cut out from each of the corners. The resulting flaps are turned up to make a box 2 cm deep. The volume of the box is:

A 94 cm^3

B 102 cm^3

C 128 cm^3

D 112 cm^3

   Answer: C

Explanation:
Area of cardboard= 12×12= 144 cm sq
area of four small sq= 4×2×2=16cm sq

area of the remaining cardboard OR outer surface area of the box=
area of cardboard-area of four sq =144-16=
128cm sq

Question 150

$10 - \{17 - 12 \div (59 + 9 \times 2 - 17)\}$ **is equal to:**

A -5

B 7

C 5

D -7

E $-\dfrac{34}{5}$

   Answer: E

Explanation:
$10 - \{17 - 12 \div (59 + 9 \times 2 - 17)\}$

$10 - (17 - 12 \div (60))$

$10 - \dfrac{84}{5}$

$\dfrac{-34}{5}$

English

Question 151

Select the most appropriate meaning of the given idiom.
A wolf in sheep's clothing

A   A celebrity dressed as a commoner

B   A scholar learning how to act as the fool

C   A dangerous person pretending to be harmless

D   A cunning man in a leather coat

Answer: C

Question 152

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.

Amnesty International had a reputation of being a hard place to work so the word 'toxic' was used to describe the Amnesty work culture so far back as the 1990s.

A   No Improvement.

B   as far back the 19903

C   so far back as the 1990

D   as far back as the 1990s

Answer: D

Question 153

Select the wrongly spelt word

A   concurrently

B   completely

C   cautiously

D   consequantly

Answer: D

Question 154

Select the word, which means the same as the group of words given.
A transport vehicle for conveying the cofiin at a funeral

A ambulance

B van

C hearse

D bier

   Answer: C

Question 155

Select the word, which means the same as the group of words given.
a person who knows a lot about and enjoys one of the arts, or food, drink, etc.

A admirer

B connoisseur

C ascetic

D aristocrat

   Answer: B

Question 156

Select the word, which means the same as the group of words given.
a person who is one of the first to do something

A creator

B maker

C pioneer

D manufacturer

   Answer: C

Question 157

Select the most appropriate meaning of the given idiom.
Flash in the pan

A Gold discovered only once during panning

B An early promise that fails to materialize

C Something that offers hope, like a light in a tunnel

D Sudden discovery or a surprise element

   Answer: B

Question 158

Identify the segment in the sentence, which contains the grammatical error.
This camping site is a naturally sculpted amphitheater that serving as the perfect spot to lay back and count the stars.

A   a naturally sculpted amphitheater

B   that serving as the perfect spot

C   to lay back and count the stars.

D   This camping site is

   Answer: B

Question 159

Identify the segment in the sentence, which contains the grammatical error.
A newly released study has found that more people were injuring riding electric scooters than by riding bicycles.

A   A newly released study has found

B   injuring riding electric scooters

C   than by riding bicycles

D   that more people

   Answer: B

Question 160

Select the synonym of the grv en vrord.
INFUSE

A   enrich

B   apply

C   fill

D   feel

   Answer: C

Question 161

Select the wrongly spelt word

A   exetension

B   executive

C   excursion

D   execution

   Answer: A

Question 162

Select the synonym of the given word.
PERSUADE

A   argue

B   convince

C   dissuade

D   mislead

   Answer: B

Question 163

Select the most appropriate word to fill in the blanks.
Scientists have identified .... regions that make people .... tasks rather than tackling them immediately.

A   head; differ

B   face; postpone

C   mind; prepone

D   brain; defer

   Answer: D

Question 164

Select the most appropriate word to fill in the blanks.
War photographers use black and white pictures as a .... because they will shout and scream at you. You won't .... the black and white. but you could walk past a colour picture.

A   strategy; consider

B   weapon; like

C   weapon; miss

D   speaker; ignore

   Answer: C

Question 165

Select the synonym of the given word.
HARDSHIP

A   mystery

B   misery

C   difficult

D   privacy

   Answer: B

Instructions

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

We are all born milk drinkers. Babies' guts produce the enzyme lactase, which breaks down lactose, the sugar in cow's milk, into the simpler sugars —- glucose and galactose. But for the majority of humans, production of the enzyme lactase plummets after weaning. "From a human perspective — no, to go further than that, from a mammalian perspective — the norm is to be able to tolerate your mother's breast milk, and then as you get past infancy, to stop producing lactase and become lactose intolerant," said Adam Fox, a consultant paediatric allergist at Guy's and St Thomas's hospitals, and one of the UK's leading food allergy experts. "Then you've got a small group of humans that have a mutation which means they maintain production of lactase into adulthood. Northern Europeans, the Masai [in east Africa], some Arab groups as well. But that's the exception, not the rule."

That schism between milk-drinkers and the rest — actually a series of independent genetic mutations — appears to have occurred about 10,000 years ago, around the time humans were domesticating farm animals. It is the reason that in countries such as the UK, Sweden and Ireland, more than 90% of adults can drink milk without suffering any ill effects, but worldwide, more than two-thirds of all adults are considered lactose intolerant. For lactose-intolerant people, a glass of milk can induce bloating, stomach pains and diarrhoea. (Lactose intolerance should not be — though often is — confused with cow's milk allergy, an immune response to the proteins in cow's milk that affects around 1% of UK adults.)

Even in northern Europe, milk as we know it is a recent phenomenon. Fresh milk, left unrefrigerated, spoils quickly and can harbor a variety of deadly pathogens, including E Coli and tuberculosis. For most of history milk was either consumed within moments of milking or
processed as cheese or yoghurt. Few drank milk in its liquid form. "The Romans considered it a sign of barbarism," said Mark Kurlansky, author of Milk! A 10, 000—Year FoodE'acas. "The only people who drank milk were people on farms, because they were the only ones who could get it fresh enough." Even then, cow's milk was considered inferior to alternatives such as goat or donkey. In the 19th century, "swill milk" — so called because cows were fed the filthy runoff from inner-city breweries, turning their milk blue — was linked with thousands of infant deaths. Only in the early 20th century, with the introduction of mandatory pasteurization — in which milk is heated to kill off any bacteria before bottling — did milk become safe enough for most people to drink regularly.)

Question 166

The author points out that in the 19th century, swill milk was linked with thousands of infant deaths. Which ONE of the actions below would have, if familiar, available and practicable for the people of that time, saved these children?

A   Feeding the cows uncontaminated healthy food

B   Freezing the milk to remove the pollutants

C   Treating lactose intolerance with medicines

D   Shutting down inner city breweries

   Answer: A

Question 167

'Lactose intolerance' is ....

A   absence of the enzyme lactase in the gut, creating intolerance for milk

B   a human body not being able to accept cow's milk allergy

C   linked to discovery and propagation of plant milk

D   experience and suffering problems in the digestive system

   Answer: A

Question 168

Most adults in India continue to have milk without suffering any of the issues outlined in the passage because ....

A they continue to live in farms and get fresh milk

B they maintain production of lactase into adulthood

C they have no other source of nutrients to nourish them

D genetic mutation has helped reduce lactase production

   Answer: B

Question 169

"More than 90% of adults in countries such as the UK, Sweden and Ireland can drink milk without suffering any ill effects" because ....

A they have a history of domesticating farm animals

B they always had pasteurized milk and avoided fresh milk

C these countries were farmland before they became sophisticated cities

D they have a lot of dairy products such as cheese and yoghurt

   Answer: A

Question 170

What is this passage about?

A Weaning and the plummeting enzyme lactase

B Why some adults develop milk intolerance

C How pasteurized milk cured lactose intolerance

D Milk and lactose intolerance

   Answer: D

Instructions
For the following questions answer them individually

Question 171

Select the antonym of the given word.
SUNDER

A asunder

B surrender

C arrest

D combine

   Answer: D

Question 172

Select the wrongly spelt word

A negation

B negativity

C navigation

D negotaition

   Answer: D

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:

It was a crime of passion of such disfiguring Violence that Victorian London was .... (1)scandalized. In November 1865, Felix Deacon, a young lithographer who had .... (2) for a married woman, Sarah Ann Peacock, was attacked .... (3) the street. His assailant was not her husband but another man, a dentist who was equally .... (4) with Mrs. Peacock and therefore saw Deacon as a .... (5).

Question 173

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

A has left

B left

C was left

D is left

   Answer: C

Question 174

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

A come

B tripped

C fallen

D cared

   Answer: C

Question 175

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

A into

B through

C   in

D   at

Answer: C

Question 176

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

A   working

B   smitten

C   bent

D   hurt

Answer: B

Question 177

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

A   opponent

B   friend

C   mediator

D   rival

Answer: D

Instructions

For the following questions answer them individually

Question 178

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.

While there is still a debate about why depression, anxiety and suicide have skyrocketed among people, today, ubiquitous smartphone use plays surely a part.

A   smartphone use surely plays a part

B   smartphone use would surely play a part

C   smartphone usage plays a part surely

D   No Improvement

Answer: A

Question 179

Select the most appropriate meaning of the given idiom.
Hit the nail on the head

A   drive a nail into a wall

B   hurt a person by telling the truth

C   say or do something exactly right

D   punish someone for a heinous crime

Answer: C

Question 180

Select the antonym of the given word.
APPALLING

A   horrible

B   bloodless

C   appealing

D   alarming

Answer: C

Question 181

Select the most appropriate word to fill in the blanks.
Earth's north magnetic .... has been drifting so fast in the last few decades that scientists say that past estimates are no longer accurate enough for precise ....

A   area; estimates

B   region; estimates

C   pole; navigation

D   zone; navigation

Answer: C

Question 182

Select the synonym of the glV en word.
INDISTINGUISHABLE

A   reflective

B   equivalent

C   profound

D   comparable

Answer: B

Question 183

Select the word, which means the same as the group of words given.
open rebellion of soldiers and sailors against lawful authority

A   strike

B   mutiny

C   protest

D   coup

   Answer: B

Question 184

Select the wrongly spelt word

A   excavation

B   elocution

C   evecuation

D   evocation

   Answer: C

Question 185

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.

The automation revolution has hit recruitment, with everything from facial expressions to vocal tone <u>now analyzed with algorithms and artificial intelligence.</u>

A   now been analyzed with algorithms and artificial intelligence

B   No Improvement

C   now analyzed by algorithms and artificial intelligence

D   now analyzed in algorithms and with artificial intelligence

   Answer: C

Question 186

Identify the segment in the sentence, which contains the grammatical error.
Smartphone cameras can now take pictures of near-professional quality, so they also have limitations.

A   so they also have limitations

B   near-professional quality

C   can now take

D   pictures of

Question 187

Select the most appropriate word to fill in the blanks.

A photograph should .... at you and tell you loudly that something's ....

A   Wink; strange

B   look; scary

C   shout; wrong

D   laugh; easy

Answer: C

Question 188

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.

A historian envisions a future in which humans <u>cannot be able to survive at all</u> if they do not remain connected.

A   will not be able to survive at all

B   not be able to survive at all

C   No Improvement

D   can be able to survive at all

Answer: A

Question 189

Select the word, which means the same as the group of words given.
a mode of behavior or way of thought peculiar to an individual (not sub- or abnormal in any way)

A   singular

B   idiosyncratic

C   cynical

D   idiotic

Answer: B

Question 190

Select the antonym of the given word.
VOLITION

A   violence

B   disposition

C   willful

D   compulsion

Answer: D

Question 191

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

During hair transplantation, hair follicles is transplanted from one part of the head to another where the hair is thinning.

A   where the hair is thinning

B   hair follicles is transplanted

C   from one part of the head to another

D   During hair transplantation

Answer: B

Question 192

Select the wrongly spelt word

A   councilor

B   consolation

C   concilliation

D   concomitant

Answer: C

Question 193

Select the antonym of the giv en word.
DIURNAL

A   nocturnal

B   annual

C   irregular

D   occasional

Answer: A

Question 194

Select the most appropriate word to fill in the blanks.

In general Earth's magnetic .... is getting weaker, leading scientists to say that it will eventually flip, like a bar .... flipping over.

A   area, tender

B   field; maglet

C   power; gymnast

D   ground; chocolate

Answer: B

Question 195

Select the antonym of the given vrord.
OPAQUE

A   absorbent

B   porous

C   transparent

D   dull

Answer: C

Question 196

Select the most appropriate meaning of the given idiom.
Back seat driving

A   Commenting on players from the sidelines

B   Interfering in affairs without having knowledge

C   Instructing husbands over the phone about what to buy

D   Attempting to teach a cab driver how to drive.

Answer: B

Question 197

Select the synonym of the given word.
DISCERN

A   regulate

B   analyze

C   control

D   discriminate

Answer: D

Question 198

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.

Authorities has been regular issuing avalanche warnings for vulnerable areas that have witnessed heavy snowfall.

A has been regularly issue

B have been regular issuing

C No Improvement

D have been regularly issuing

Answer: D

Question 199

Identify the segment in the sentence, which contains the grammatical error.
Regardless of class, income or race, parents believe that children who are bored after school should enrolled in extracurricular activities.

A in extracurricular activities.

B Regardless of class, income or race,

C should enrolled

D children who are bored after school

Answer: C

Question 200

Select the most appropriate meaning of the given idiom.
Carry a chip on one's shoulder

A Carrying multiple stars over the lapel

B Entertaining a grudge over a past event

C Having a plate inserted to fix the collar bone

D Moving daintily across rooms

Answer: B