## Reasoning

**Instructions**

For the following questions answer them individually

**Question 1**

Which two numbers should be interchanged to make the following equation correct?

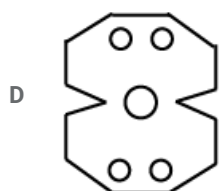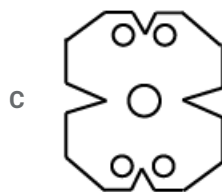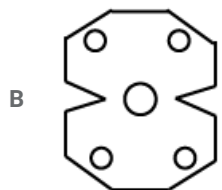$8 + 12 \div 9 \times 6 - 4 = 12 \div 6 \times 8 + 9 - 1$
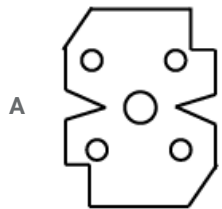
A  6 and 12

B  8 and 4

C  12 and 8

D  6 and 9

  **Answer:** A

**Question 2**

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



(X)          (Y)          (Z)

A



B



C
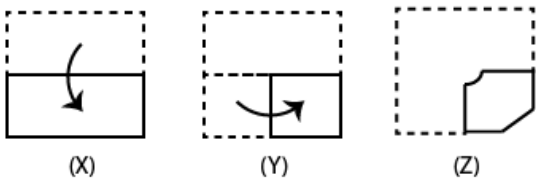


D

## Question 3

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



(x)

A



B



C



D
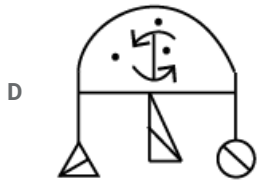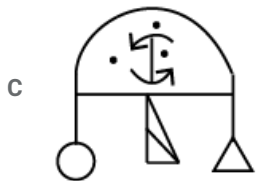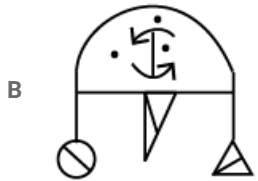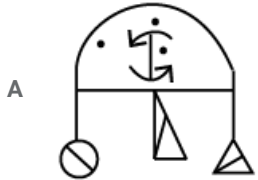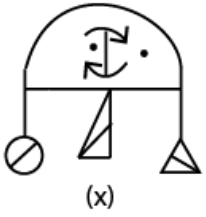


Answer: D

## Question 4

Which number will replace the question mark (?) in the following series?
3, 5, 10, 18, 29, ?, 60

A   37

B   46

C   45

D   43

Answer: D

**Question 5**

In a code language. EXPLAIN is written as XEALPNI. How will FACTORY be written in that language?

A  AFTCROY

B  AFTOCYR

C  AFOTCYR

D  CAFOTYR

   Answer: C

**Question 6**

If DRIVE is coded as 59372 and SPUR is coded as 6489. what will be the code for PRIDE?

A  49235

B  94532

C  43925

D  49352

   Answer: D

**Question 7**

Select the correct alternative to indicate the arrangement of the following words in a logical and meaninng order.
1. Fruit
2. Harvest
3. Seed
4. Sell
5. Plant

A  3, 1, 5, 2, 4

B  3, 5, 1, 2, 4

C  1, 3, 5, 2, 4

D  4, 2, 1, 3, 5

   Answer: B

**Question 8**

Identify the missing figure in the following series.

A


B


C


D
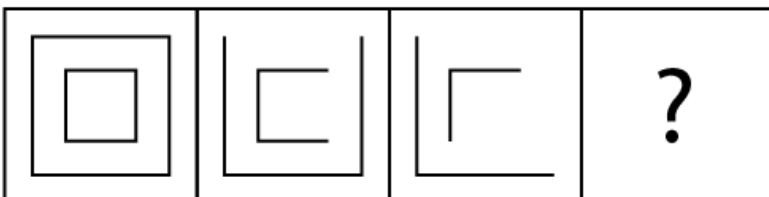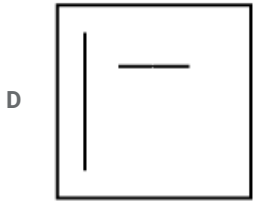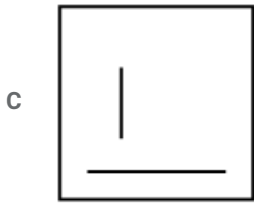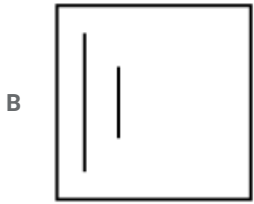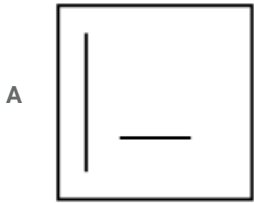
**Answer:** D

**Question 9**

Select the option in which the given figure is embedded.


(X)


A


B

C



D
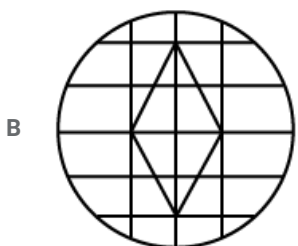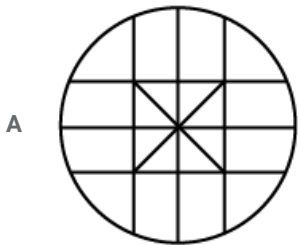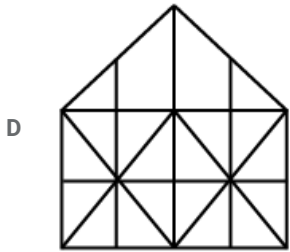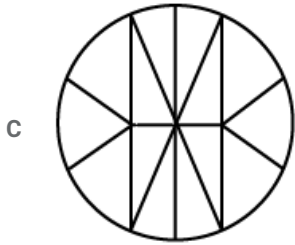
**Answer:** B

## Question 10

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

A   19 : 40

B   21 : 45

C   9 : 20

D   14 : 30

**Answer:** B

## Question 11

Select the set of numbers that is similar to the following set.
{5, 10, 17 }

A   {37, 50, 65}

B   {17, 35, 72}

C   {24, 35, 48}

D   {26, 50, 65}

**Answer:** A

## Question 12

Rinky walked 70 111 towards the east from her house. and then took a right turn and walked 50 m to reach the post office. From there. she took a right turn again and walked 150 m to reach the market, from Where she took a left turn and walked a few meters to reach the school. If the air distance between Rinky's house and the school is 170 in. What is the air distance between the market and the school?

A   100 m

B   120 m

C  90 m

D  70 m

Answer: A

## Question 13

Two positions of the same dice are given. Which number will be at the top if '6' is at the bottom ?
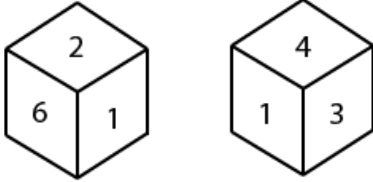


A  1

B  5

C  3

D  4

Answer: D

## Question 14

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

A  975 : 753

B  739 : 527

C  697 : 475

D  456 : 234

Answer: B

## Question 15

Two statements are given, followed by three conclusions numbered I, II and III. 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 animals are mammals.
No mammal is herbivore.
Conclusions:
I. No herbivore is mammal.
II. Some mammals are animals.
III. No animal is herbivore.

A  Only conclusions I and II follow.

B  None of the conclusions follows.

C  Only conclusions II and III follow.

D  Only conclusions I and HI follow.

Answer: A

## Question 16

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

9 : 19 :: 29 : ........

A  59

B  39

C  49

D  69

Answer: A

## Question 17

How many triangles are there in the following figure ?
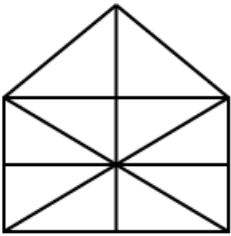


A  21

B  23

C  14

D  19

Answer: A

## Question 18

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

A  MSOQ

B  GPJM

C  RXTV

D  NEHK

Answer: D

## Question 19

If FATHER = 7 and DAUGHTER = 9, then DISTANT = ............

A  10

B  6

C 7

D 8

   Answer: D

## Question 20

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

A Stress

B Concentration

C Fatigue

D Tension

   **Answer:** B

## Question 21

**Select the option that is related to the third number in the same way as the second number is related to the first number.**
**9 : 21 :: 27 : .....**

A 63

B 72

C 51

D 49

   **Answer:** A

## Question 22

**Which number will replace the question mark (?) in the following series?**
**5, 7, 11, 14, 23, ?, 43, 48**

A 26

B 31

C 39

D 27

   **Answer:** D

**Question 23**

In the following diagram, the triangle represents 'businessmen'. the circle represents 'rich' and the rectangle represents 'city dwellers'. The numbers in different segments show the number of persons.
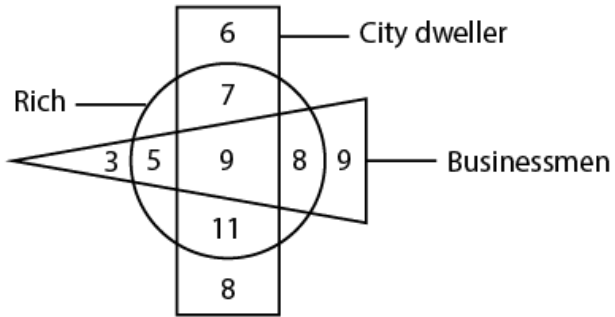


How many rich city dwellers are not businessmen?

**A** 18

**B** 20

**C** 14

**D** 16

Answer: A

**Question 24**

'Tired' is related to 'Exhausted' in the same way as 'Sad' is related to '.....

**A** Depressed

**B** Regret

**C** Emotional

**D** Withdrawn

Answer: A

**Question 25**

Select the set of numbers that is similar to the following set.
{8, 19, 30}

**A** {12, 25, 38}

**B** {6, 21, 32}

**C** {11, 24, 38}

**D** {9, 20, 35}

Answer: A

**Question 26**

Which number will replace the question mark (?) in the following series?
7, 9, 13, 15, ?, 21, 25

A  19

B  20

C  17

D  18

Answer: A

## Question 27

'Experiment' is related to 'Invention' in the same way as 'Read' is related to '.........'.

A  Evaluation

B  Concentration

C  Learn

D  Invention

Answer: C

## Question 28

Select the word-pair in which the two words are related in the same way as are the two words in the given word-pair.
Dress : Stitch

A  Water : Swim

B  Liquid : Measure

C  Dish : Cook

D  Drive : Road

Answer: C

## Question 29

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

A  35 : 42

B  25 : 30

C  45 : 55

D  15 : 18

Answer: C

**Question 30**

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



A



B



C



D
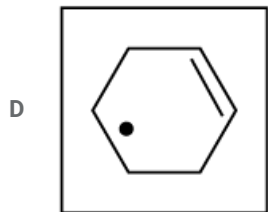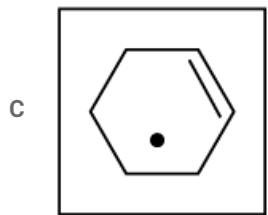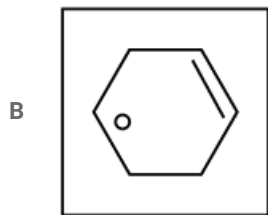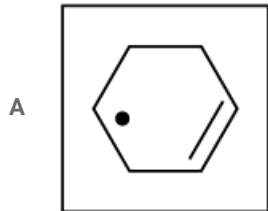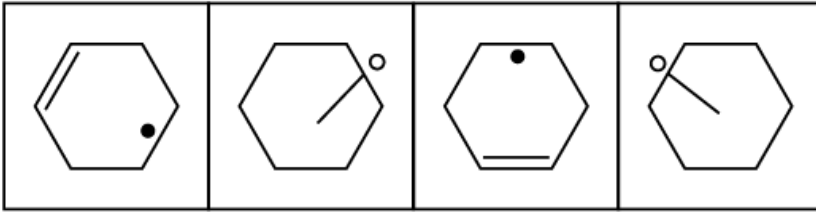


Answer: D

**Question 31**

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

A   12 : 20

B   42 : 56

C   20 : 30

D   30 : 40

Answer: D

**Question 32**

Select the word-pair in which the two words are related in the same way as are the two words in the given word-pair.
Word : Letter

A   Doctor : Medicine

B   House : Building

C   School : Class

D   Father : Son

   Answer: C

**Question 33**

In a code language. PENCIL is written as PNEICL. How will MOTHER be written as in that language?

A   MTOREH

B   MHTORE

C   OMHTRE

D   MTOEHR

   Answer: D

**Question 34**

Select the option in which the given figure is embedded.


(x)

A


B

C



D
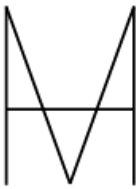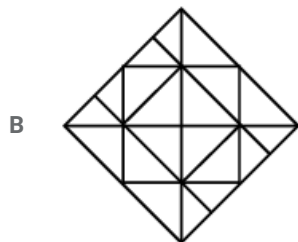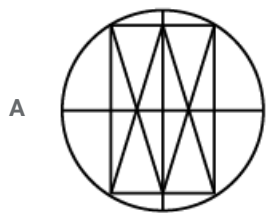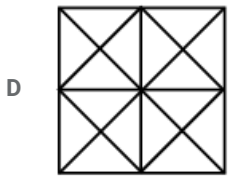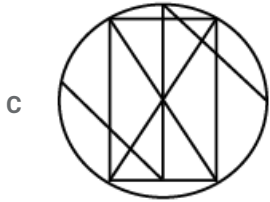
**Answer:** A

## Question 35

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

**A**  Conclusion

**B**  Valediction

**C**  Termination

**D**  Intermission

**Answer:** D

## Question 36

**Swati's school bus starts from her house and takes one left turn to reach the hospital. Then. it takes a right turn and covers 5 km. Finally. it takes a left turn to reach her school. On reaching the school. the bus faces southwest. In which direction was the bus facing when it lefi Swati's house?**

**A**  East

**B**  North-west

**C**  South-east

**D**  North-east

**Answer:** B

## Question 37

**Select the option that is related to the third term in the same way as the second term is related to the first term.**
**HJLN : ILOR :: DFHJ : ........**

**A**  EHLO

**B**  CGJM

**C**  EHJL

**D**  EHKN

**Answer:** D

**Question 38**

Identify the missing figure in the following series.



A



B



C



D
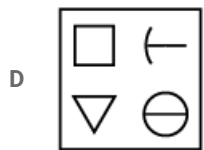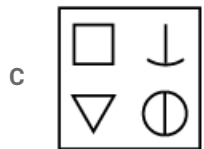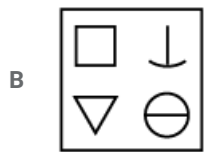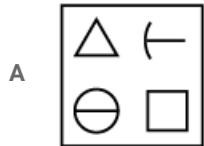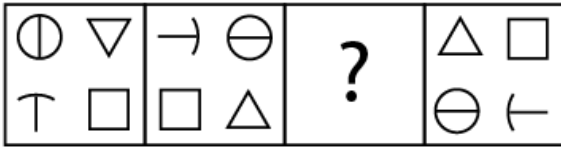


Answer: C

**Question 39**

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

A   WRSQ

B   VOSP

C   VUSP

D   WOSP

Answer: B

**Question 40**

Which of the following interchanges of signs and numbers would make the flowing equation correct?
$18 - 8 \div 12 \times 6 + 10 = 12$

A   × and −, 18 and 6

B   × and ÷, 12 and 6

C   + and −, 6 and 8

D   + and −, 8 and 10

    **Answer:** C

## Question 41

Which letter will replace the question mark (?) in the following series?
J, Q, L, O, N, ?, P, K

A   K

B   M

C   I

D   L

    **Answer:** B

## 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   SQOM

B   GHIJ

C   WUTR

D   MS

    **Answer:** C

## Question 43

In the following diagram, the triangle represents 'cricket players'. the circle represents 'swimmers' and the rectangle represents 'students'. The numbers in different segments show the number of persons.
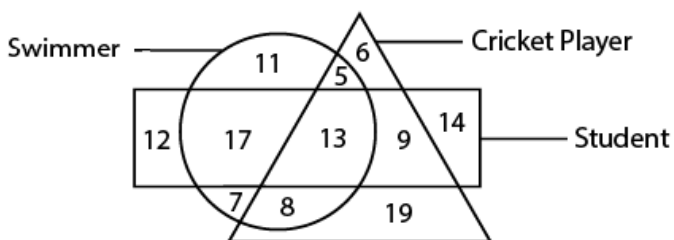


How many students are swimmers but not cricket players?

A   13

B   17

C   8

D   18

    **Answer:** B

**Question 44**

Two statements are given. followed by three conclusions numbered I, II and III. 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 males are swimmers.
All swimmers are athletes.
Conclusions:
I. Some athletes are males.
II. No athlete is male.
III. Some athletes are swimmers.

A   Only conclusions I and III follow.

B   Only conclusions I and II follow.

C   Only conclusions II and III follow.

D   All of the conclusions follow.

Answer: A

**Question 45**

Which letter-cluster will replace the question mark (?) in the following series?
HKNQ, JIPO, KHQN, MFSL, ?

A   NEKT

B   NETK

C   ODUJ

D   NGRM

Answer: B

**Question 46**

Select the number-pair in which the two numbers are related in the same way as are the two numbers of the given number pair.
1 : 8

A   8 : 27

B   6 : 30

C   16 : 49

D   9 : 36

Answer: A

**Question 47**

In the following diagram, the triangle represents 'teachers'. the circle represents 'intelligent'. the rectangle represents 'urban' and the square represents 'males'. The numbers in different segments show the number of persons.



How many urban intelligent teachers are not male?

A   10

B   12

C   14

D   4

   **Answer:** A

**Question 48**

Which two signs should be interchanged to make the given equation correct?
$9 + 12 \div 6 \times 8 - 4 = 14$

A   $\div$ and $+$

B   $+$ and $\times$

C   $-$ and $\times$

D   $\times$ and $\div$

   **Answer:** D

**Question 49**

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



(x)

A   

**B**



**C**



**D**

**Answer:** B

**Question 50**

Select the correct alternative to indicate the arrangement of the following words in a logical and meaningful order.
1. Judgment
2. Arrest
3. Prison
4. Court
5. Crime
6. Punishment

**A**  5, 4, 2, 1, 6, 3

**B**  5, 2, 3, 4, 1, 6

**C**  3, 6, 4, 1, 2, 5

**D**  5, 2, 4, 1, 6, 3

**Answer:** D

# General knowledge

**Instructions**
For the following questions answer them individually

**Question 51**

The states of ......... celebrated their $47^{th}$ Statehood Day on $21^{st}$ January 2019.

**A**  Uttarakhand, Manipur and Telangana

**B**  Chhattisgarh, Telangana and Tripura

**C**  Tripura, Assam and Telangana

**D**  Tripura, Manipur and Meghalaya

**Answer:** D

## Question 52

**Which is the smallest bone in the human body?**

A  Incus

B  Stapes

C  Metacarsal

D  Malleus

   **Answer:** B

## Question 53

**DNA was first isolated. analysed and recogiised as a unique macro—molecule by ............ in 1869.**

A  Alfred Hershey

B  William Astbury

C  Friedrich Miescher

D  Oswald Avery

   **Answer:** C

## Question 54

**........ is an inherited blood disorder due to which people sufi'ering from this condition are unable to make 4 haemoglobin.**

A  Stroke

B  Thalassemia

C  Bone Marrow failure

D  Thrombosis

   **Answer:** B

## Question 55

**Which of the following elements/chemical compounds has the highest density?**

A  Osmium

B  Zinc

C  Nickel

D  Mercury

   **Answer:** A

**Question 56**

Banabhatta was the court poet of which of the following Indian kings?

A  Harshavardhana

B  Pulkesin II

C  Yasovarman

D  Chandra gupta II

Answer: A

**Question 57**

Which Schedule of the Indian Constitution deals with the disqualification of elected members on the ground of defection?

A  TWelfth

B  Eleventh

C  Ninth

D  Tenth

Answer: D

**Question 58**

The ....... is a Jain text containing the biographies of the Jain Tirthankaras. most notably Parshvanath and Mahavira.

A  Uttaradhyayana

B  Kalpa Sutra

C  Mahapurana

D  Adi Purana

Answer: B

**Question 59**

Sanrakshan Kshmata Mahotsav (SAKSHAM) falls under the aegis of the ......... Government of India.

A  Ministry of External Affairs

B  Ministry of Chemicals and Fertilizers

C  Ministry of Petroleum & Natural Gas

D  Ministry of Finance

Answer: C

**Question 60**

In January 2019, Prime Minister Narendra Modi inaugurated the Kollam Bypass. Which of the following is NOT true of the bypass?

**A**   It is 18 km long and has three lanes.

**B**   It lies on the National Highway-66.

**C**   Its opening would considerably reduce travel time between Alappuzha and Thiruvananthapuram.

**D**   It is the first National Highway project in the country taken up on a 50:50 Centre-State partnership.

Answer: A

## Question 61

The expansion project of Numaligarh Refinery involves setting up a crude oil pipeline from .......... to Numaligarh.

**A**   Banauni

**B**   Halida

**C**   Paradip

**D**   Bina

Answer: C

## Question 62

The .......... dance is performed by shepherd community of Goa during Navratri.

**A**   Dhangar

**B**   Lava

**C**   Fugdi

**D**   Kolkali

Answer: A

## Question 63

An exhibition ........ was held in New Delhi, in January 2019 by the Minority Affairs Ministry to project the talent of Indian artisans.

**A**   Threads Fashion and Lifestyle

**B**   Hunar Haat

**C**   Adaah

**D**   Andaaz

Answer: B

## Question 64

Pune is set to become the first Indian city to have a traffic robot in 2019. Which of the following statements is NOT true about the traffic police authorities of Pune and their robot named "Roadeo"?

**A** Roadeo has a 26-inch LCD display.

**B** Roadeo's hands have been engineered to move and show stop signs to vehicles

**C** Roadeo will move around city roads, functioning as a quasi-traffic policeman and cautioning commuters.

**D** Roadeo is equipped with a siren. skid-steering wheels and obstacle-detection sensors.

**Answer:** A

## Question 65

In January 2019, President Ramnath Kovind gave his assent to the $124^{th}$ constitutional Amendment Bill (which is now the $103^{rd}$ Amendment Act of the Constitution of India) providing .......... reservation for economically weaker sections from the upper castes.

**A** 10%

**B** 20%

**C** 5%

**D** 15%

**Answer:** A

## Question 66

In January 2018, renowned scientist, .......... took charge as the Director of Vrkram Sarabhai Space Centre (VSSC).

**A** Salim Ali

**B** S. Somanath

**C** Jayant Narlikar

**D** C. N .R Rao

**Answer:** B

## Question 67

...... became the first Indian Badminton player to win the BW'F World Tour Final in December 2018.

**A** Aparna Popat

**B** Jwala Gutta

**C** PV Sindhu

**D** Saina Nehwal

**Answer:** C

## Question 68

The hypothalamus. a small region of the ........ plays a crucial role in many important functions of the human body.

**A** liver

**B** brain

**C** kidney

**D** stomach

Answer: B

## Question 69

The .......... was awarded the International Gandhi Peace Prize (2016) for its work towards providing mid-day meals to children across India.

**A** Akshaya Patra Foundation

**B** Ekal Abhiyan Trust

**C** Vivekananda Kendra

**D** Sulabh International

Answer: A

## Question 70

Weightlifter .......... won India's maiden gold medal at 2018 Youth Olympic Games in the men's 62 kg category in Argentina.

**A** Santosh Yadav

**B** Jeremy Lalrinnunga

**C** Sanjita Chanu

**D** Jitu Rai

Answer: B

## Question 71

The first India-ASEAN InnoTech Summit was held in ......... in November 2018.

**A** Mumbai

**B** Ahmedabad

**C** Chennai

**D** New Delhi

Answer: D

## Question 72

Passer Domesticus is commonly known as ..........

**A** Parrot

**B** Lark

**C** Pigeon

**D** Sparrow

Answer: D

## Question 73

......... was awarded the International Gandhi Peace Award (2016) for its contribution towards the improvement of sanitation facilities in India and the emancipation of manual scavengers.

**A** Ekal Abhiyan Trust

**B** Sulabh International

**C** Vivekananda Kendra

**D** Akshaya Patra Foundation

Answer: B

## Question 74

In June 2017, NASA successfully launched ........ mission to study the interstellar medium. the matter between stars.

**A** HESS

**B** FLESS

**C** BLESS

**D** CHESS

Answer: D

## Question 75

In which year did Independent India Win its first Olympic gold medal?

**A** 1960

**B** 2008

**C** 1972

**D** 1948

Answer: D

## Question 76

In January 2019, Union Minister of Petroleum and Natural Gas ..... flagged off Sanrakshan Kshmata Mahotsav (SAKSHAM) vans.

**A** Dharmendra Pradhan

**B** Nitin Jairam Gadkari

**C**  DV Sadananda Gowda

**D**  Suresh Prabhu

**Answer:** A

## Question 77

**The power of a lens is measured in .........**

**A**  Ampere

**B**  Candela

**C**  Diopter

**D**  Kelvin

**Answer:** C

## Question 78

**Which of the followmg gases turn lime water milky?**

**A**  Oxygen

**B**  Nitrogen

**C**  Hydrogen

**D**  Carbon Dioxide

**Answer:** D

## Question 79

**The tennis pair of .......... won a gold medal in the Men's Doubles tennis event at the 2018 Asian Games.**

**A**  Mahesh Bhupathi and Leander Paes

**B**  Rohan Bopanna and Divij Sharan

**C**  Aleksandr Bublik and Denis Yevseyev

**D**  Yuki Bhambri and Ramanathan Krishnan

**Answer:** B

## Question 80

**In January 2019, the Reserve Bank of India initiated two surveys namely, Industrial Outlook Survey (103) and ..........**

**A**  Services and Trade Outlook Survey (STOS)

**B**  Services Outlook Survey (SOS)

**C**  Services Trade Survey (STS)

**D**  Services and Infrastructure Outlook Survey (SIOS)

**Answer:** D

**Question 81**

'The Hindu Young World-Goodbooks Award'2018 in the 'Best Book: Fiction' category was given to .......... for 'Boy No. 32'.

A   Rajiv Elipe

B   Marnta Nainy

C   Venita Coelho

D   Vinayak Verma

   **Answer:** C

**Question 82**

Shot-putter .......... won a gold medal in the men's shot put event at the 2018 Jakarta-Palembang Asian Games held in Indonesia.

A   Inderjit Singh

B   Bahadur Singh Sagoo

C   Om Prakash Singh

D   Tejinder Pal Singh Toor

   **Answer:** D

**Question 83**

Which of the following articles of the India Constitution deals with the Uniform Civil Code?

A   Article 46

B   Article 44

C   Article 45

D   Article 43

   **Answer:** B

**Question 84**

The construction work of the ₹ 500—crore Pagladiya Multipurpose Dam project in Nalbari district of .......... will begin from February 2019.

A   Tripura

B   Telangana

C   Assam

D   Meghalaya

   **Answer:** C

**Question 85**

In January 2019, US-based Indian poet .......... received the 'Woman's Voice Award' at the Apeejay Kolkata Literary Festival (AKLF) 2019.

A   Sujata Bhatt

B   Meena Alexander

C   Smita Agarwal

D   Ranjani Murali

   **Answer:** D

**Question 86**

The Second Battle of Tarain was fought in the year ..........

A   1294 AD

B   1079 AD

C   1192 AD

D   1345 AD

   **Answer:** C

**Question 87**

Manas Tiger Reserve is located in which Indian state?

A   Karnataka

B   Assam

C   Maharashtra

D   Rajasthan

   **Answer:** B

**Question 88**

'Sakhi centre' or 'One Stop Centre (080' is a frilly sponsored scheme of the Central Government under the Ministry of ___.

A   Women and Child Development

B   Law and Justice

C   Culture

D   Housing and Urban Affairs

   **Answer:** A

**Question 89**

Karma is a dance form from which of the following states?

**A** Rajasthan

**B** Jharkhand

**C** Gujarat

**D** Maharashtra

Answer: B

## Question 90

**Who started the Asiatic Society of Bengal in 1784?**

**A** William Adam

**B** William Wordsworth

**C** William Jones

**D** William Carey

Answer: C

## Question 91

**Garo Hills lie in .......... state.**

**A** Assam

**B** Meghalaya

**C** Nagaland

**D** Manipur

Answer: B

## Question 92

**........ became India's first judo medallist at the Youth Olympics Games held in Argentina in 2018.**

**A** Kalpana Devi

**B** Rajwinder Kaur

**C** Garirna Chaudhary

**D** Thangjam Tababi Devi

Answer: D

## Question 93

**The book 'Ammachi's Amazing Machines' by ......... won 'The Hindu Young World-Goodbooks Award' 2018 in the 'Best Picture Book: Illustration' category at the event.**

**A** Vinayak Verma

**B**   Venita Coelho

**C**   Marnta Nainy

**D**   Rajiv Elipe

   **Answer:** D

## Question 94

In January 2019, the World Health Organisation released its list of 10 global health threats which demand immediate attention. Which of the following is NOT one of them?

**A**   HIV

**B**   Communicable diseases

**C**   Antimicrobial resistance

**D**   Dengue

   **Answer:** B

## Question 95

In November 2018, ......... electronics company CASIO launched the world's first Goods and Services Tax (GST) calculator in India.

**A**   Japanese

**B**   UK

**C**   US

**D**   Chinese

   **Answer:** A

## Question 96

In August 2018, India rejected Pakistan's objections on its two hydropower projects, Pakal Dul and Lower Kalnai on the river.

**A**   Chenab

**B**   Yamuna

**C**   Kaveri

**D**   Brahmaputra

   **Answer:** A

## Question 97

The Drishyakala—Exhibition held at the Red Fort showcased art works from .......... till India's independence.

**A**   12th century

**B** 16th century

**C** 11th century

**D** 10th century

Answer: B

## Question 98

As of January 2019, the number of high courts in India is ………

**A** 18

**B** 30

**C** 25

**D** 20

Answer: C

## Question 99

Who wrote the book "Gulamgiri"?

**A** Vinoba Bhave

**B** Jyotiba Phule

**C** Swami Dayanand Saraswati

**D** Swami Vivekanand

Answer: B

## Question 100

The Gurmukhi script was created in the $16^{th}$ century CE by the second Sikh guru ……….

**A** Guru Ram Das

**B** Guru Arjan

**C** Guru Angad

**D** Guru Arnar Das

Answer: C

# Quant

**Instructions**
For the following questions answer them individually

## Question 101

If a train rims with the speed of 52 km/h, it reaches its destination late by 15 minutes. However. if its speed is 65 km/h, it is late by 5 minutes only. The right time for the train to cover its journey is:

A  40 minutes

B  35 minutes

C  45 minutes

D  30 minutes

Answer: B

## Question 102

A sphere of radius 9 cm is melted and recast into small spheres of radius 2 cm each. How many such sphere can be made?

A  92

B  90

C  93

D  91

Answer: D

## Question 103
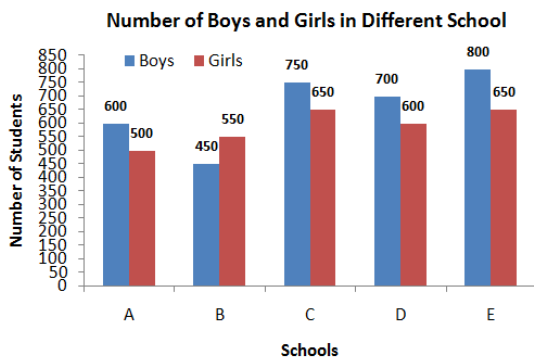


In the given bar graph, what is the ratio of the total boys and girls in all schools?

A  65 : 63

B  66 : 59

C  65 : 58

D  59 : 66

Answer: B

## Question 104

Ina class of 45 students, 40% are boys and rest are girls. The average weight of the girls is 55 kg and that of boys is 65 kg. What is the average weight (in kg) of the whole class?

**A** 60 kg

**B** 61 kg

**C** 58 kg

**D** 59 kg

Answer: D

## Question 105

If $(x-3)^2 + (2x-5)^3 + (x-4)^3 = (3x-9)(2x-5)(x-4)$, then what is the value of $x$?

**A** 2

**B** 5

**C** 4

**D** 3

Answer: D

## Question 106

The square root which of the following is a rational number?

**A** 5535.36

**B** 3152.88

**C** 72905.2

**D** 67508.5

Answer: A

## Question 107

Two pipes A and B can fill a tank in 16 hours and 20 hours respectively. They are opened alternatively for 1 hour each. starting with pipe A first. In how may hours with the empty tank be filled?

**A** $17\frac{3}{4}$

**B** $17\frac{1}{5}$

**C** $17\frac{3}{5}$

**D** $17\frac{1}{14}$

Answer: A

**Question 108**

If the seven digit number 3x6349y is divisible by 88, then what will be the value of (2x + 3y)?

A   28

B   30

C   32

D   35

   Answer: C

**Question 109**

One side of a rhombus is 6.5 cm and one of it's diagonal is 12 cm. What is the area of the rhombus?

A   78 $cm^2$

B   15 $cm^2$

C   30 $cm^2$

D   60 $cm^2$

   Answer: C

**Question 110**

If $\sec 2x = \mathrm{cosec}(3x - 45°)$. then $x$ is equal to:

A   27°

B   40°

C   45°

D   35°

   Answer: A

**Question 111**

The efficiencies of A. B and C are in the ratio 5 : 6 : 8. Working together. they can complete a piece of work in 120 hour's. In how many hours will, B alone be able to complete 40% of that work?

A   152

B   182.4

C   167.2

D   114

   Answer: A

**Question 112**

The price of sugar has increased by 14%. By what percentage can a person decrease the consumption so that there is an increase in the expenditure by 8% only? (correct to one decimal place)

**A** 5.9%

**B** 5.5%

**C** 5.3%

**D** 5.7%

Answer: C

**Question 113**



Number of Boys and Girls in Different School
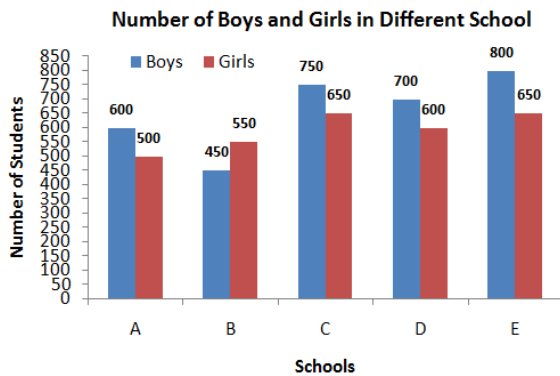
In the given bar graph, in which college, the percentage of boys is the highest?

**A** C

**B** D

**C** A

**D** E

Answer: D

**Question 114**

The value of $\frac{\sin^2 60° + \cos^2 30° - \sec 35°.\sin 55°}{\sec 60° + \text{cosec } 30°}$ is equal to:

**A** $\frac{1}{3}$

**B** $\frac{1}{4}$

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

**D** $\frac{1}{8}$

Answer: D

**Question 115**

The value of $6\frac{1}{5} - \left[4\frac{1}{2} - \left\{\frac{5}{6} - \left(\frac{3}{5} + \frac{3}{10} - \frac{7}{15}\right)\right\}\right]$ is:

**A** 2.1

**B** 2.8

**C** 2.5

**D** 1.8

Answer: A

## Question 116

A shopkeeper sold two articles for ₹ 9,879 each. On one, he gained 11% and on the other. he lost 11%.What is the overall percentage gain or loss?

**A** 1.21% gain

**B** 1.25% gain

**C** 1.21% loss

**D** 1.25% loss

Answer: C

## Question 117

$\frac{63.5 \times 63.5 \times 63.5 + 36.5 \times 36.5 \times 36.5}{6.35 \times 6.35 + 3.65 \times 3.65 - 6.35 \times 3.65}$ **is equal to:**

**A** 100

**B** 1,000

**C** 1,00,000

**D** 10,000

Answer: D

## Question 118

From the top of a 120 m high tower, the angle of depression of the top of a pole is $45°$ and the angle of depression of the foot of the pole is $\theta$, such that $\tan \theta = \frac{3}{2}$, What is the height of the pole?

**A** 80 m

**B** 40 m

**C** 60 m

**D** 75 m

Answer: B

## Question 119

What is the ratio of mean proportional between 3.6 and 12.1 and third proportional between 2 and 11?

**A** 11 : 36

**B** 36 : 5

**C** 6 : 5

**D** 6 : 55

Answer: D

## Question 120

Pipes A and B can fill a tank in 16 hours and 24 hours respectively whereas pipe C can empty the full tank in 40 hours. All three pipes are opened together. but pipe A is closed after 8 hours. After how many hours. the remaining part of tank will be filled?

**A** 22

**B** 30

**C** 28

**D** 26

Answer: A

## Question 121

**Percentage of Employees in different Dept.(Total 450 Employees)**
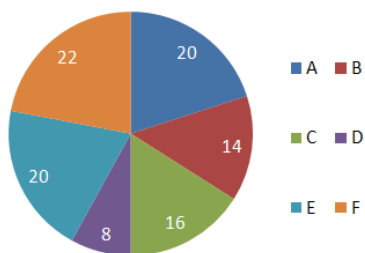


In the given pie-chart, if the female employees in department D is 75%. then how many male employees are in that department?

**A** 9

**B** 4

**C** 5

**D** 6

Answer: A

## Question 122

A boat can go 10 km downstream and 8 km upstream in 49 minutes. Also it can go 12 km downstream and 4 km upstream in 42 minutes. What is the speed of stream in km/h?

**A** 1.5

**B** 2.5

**C** 2

D 1

Answer: C

## Question 123

A cuboid of edges 32 cm, 4 cm and 4 cm is cut to form cubes of edge 4 cm each. What is the sum of total surface areas of all cubes formed?

A  $544\ cm^2$

B  $640\ cm^2$

C  $576\ cm^2$

D  $768\ cm^2$

Answer: D

## Question 124

$\frac{17}{30} + \left[3\frac{1}{5} - \left\{\frac{5}{6} - \left(3\frac{4}{5} \div 9\frac{1}{2}\right)\right\}\right]$ is equal to:

A  $\frac{1}{5}$

B  $\frac{10}{3}$

C  $\frac{3}{5}$

D  $\frac{11}{3}$

Answer: B

## Question 125

Two numbers are in the ratio 6 : 11. If their HCF is 28. then the sum of these two numbers is:

A  392

B  448

C  420

D  476

Answer: D

## Question 126

The sides of a triangle are 24 cm, 45 cm and 51 cm. At each of it's vertices, circles of radius 10.5 cm are drawn. What is the area of the triangle, excluding the portion covered by sectors of the circles?$(\pi = \frac{22}{7})$

A  $327.75\ cm^2$

B  $366.75\ cm^2$

**C** $464.75\ cm^2$

**D** $244.75\ cm^2$

Answer: B

## Question 127

What is the sum of digits of the least number, which when divided by 15, 18 and 42 leaves the same remainder 8 in each case and is also divisible by 13?

**A** 24

**B** 26

**C** 25

**D** 22

Answer: B

## Question 128

If the income of A is 24% less than income of B, then what percentage is B's income is more than that of A?

**A** $\frac{600}{19}$ %

**B** $\frac{600}{29}$ %

**C** $\frac{600}{17}$ %

**D** $\frac{600}{31}$ %

Answer: A

## Question 129

In $\triangle ABC, \angle A = 70°. AB$ and $AC$ are produced to points $D$ and $E$ respectively. If the bisectors of $\angle CBD$ and $\angle BCE$ meet at the point $O$, then $\angle BOC$ is equal to:

**A** $105°$

**B** $70°$

**C** $95°$

**D** $55°$

Answer: D

## Question 130
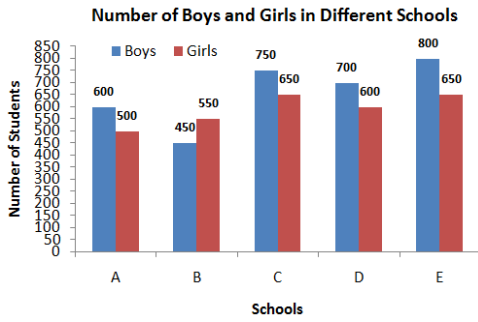


In the given bar graph, what is the average number of girls from all schools?

**A** 575

**B** 595

**C** 590

**D** 580

Answer: C

## Question 131

Let $\triangle ABC \sim \triangle RPQ$ and $\dfrac{ar(\triangle ABC)}{ar(\triangle PQR)} = \dfrac{1}{9}$. If $AB = 3$ cm. $BC = 4$ cm and $AC = 5$ cm, then $PQ$ is equal to.

**A** 9 cm

**B** 15 cm

**C** 12 cm

**D** 18 cm

Answer: C

## Question 132

If $a^3 - b^3 = 3552$ and $(a - b) = 6$, then $(a + b)^2 - ab$ is equal to:

**A** 568

**B** 618

**C** 636

**D** 592

Answer: D

## Question 133

16 persons working 6 hours a day can complete a work in 10 days. In how many days 24 persons working 8 hours a day will complete 80% of that work?

**A** 4

**B** 3

**C** 6

**D** 8

Answer: A

## Question 134

A, B and C started a business by investing ₹ 1,37,500 and ₹ 162,500 and ₹ 1,87,500 respectively. A is a working partner and gets 20% of the profit as working allowance and remaining is distributed in the proportion of their investment. If the total profit is ₹ 2,19,375,what is the share of C?

**A** ₹ 64,500

**B** ₹ 62,700

**C** ₹ 67,500

**D** ₹ 88,600

Answer: C

## Question 135
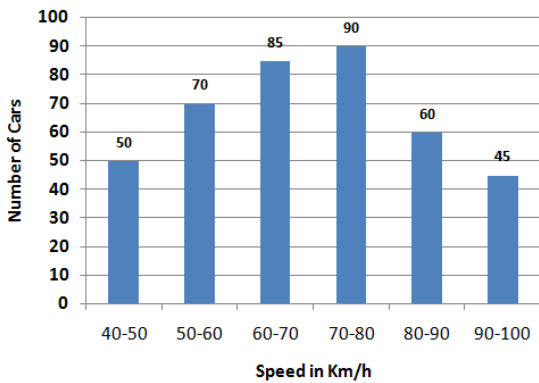


In the given histogram, what percentage of cars were running with the speed less than 60 km/h?

**A** 28%

**B** 30%

**C** 25%

**D** 35%

Answer: B

## Question 136

A sum of ₹ 10,000 is invested for 17 months at 8% per annum compounded half yearly. What is the percentage gain at the end of 17 month. nearest to one decimal place?

**A** 12.0%

**B** 12.4%

**C** 11.8%

Answer: C

## Question 137
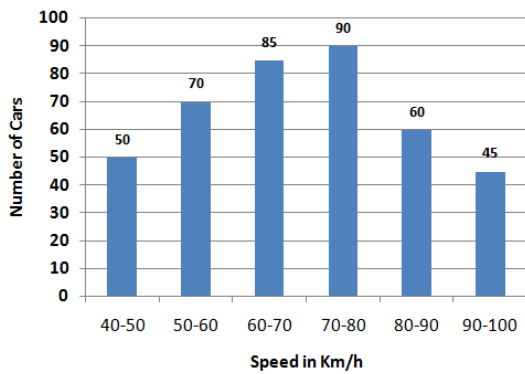


In the given histogram. what is the mean speed of cars (in km/h) to nearest Whole number?

A 71

B 70

C 72

D 69

Answer: D

## Question 138

The successive discounts of 30%. 25% and 15% is equivalent to a single discount of:

A 54.625%

B 55.375%

C 60.275%

D 60.725%

Answer: B

## Question 139

A shopkeeper marks the price of an article such that after giving a discount of 30%, he gains 20%. If the marked price of the article is ₹ 480. what is the cost price of the article?

A ₹ 250

B ₹ 260

C ₹ 300

D ₹ 280

Answer: D

## Question 140

**Percentage of Employees in different Dept.(Total 450 Employees)**
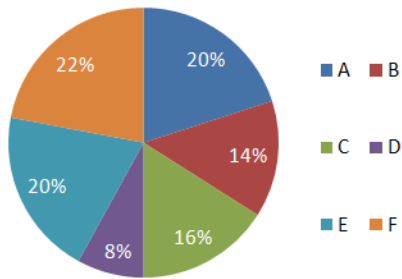


In the given pie-chart, what is the central angle of the sector representing the number of employees in the department D?

A  29.6°

B  28.8°

C  29.2°

D  29.8°

Answer: B

## Question 141

The average of 20 numbers is 65. The average of the first 9 numbers is 68 and the average of next 8 numbers is 62. If the $18^{th}$ number is 3 more than $19^{th}$ number and 9 less than $20^{th}$ number. then what is the average of $19^{th}$ and $20^{th}$ number?

A  64.5

B  66

C  65

D  65.5

Answer: C

## Question 142

The length of shadow of a vertical pole on the ground is 24 m. If the angle of elevation of the sun at that time is $\theta$, such that $\sin \theta = \frac{5}{13}$, then what is the height of the pole?

A  18 m

B  12 m

C  8 m

D  10 m

Answer: D

## Question 143

A sum of ₹ 10,200 is invested partly at 8% per annum and remaining at 6% per annum for 3 years at simple interest. If the total interest is ₹ 2,124, how much money was invested at 6% per annum?

A  ₹ 4,800

B  ₹ 4,900

C  ₹ 5,200

D  ₹ 5,400

Answer: D

## Question 144

The radius of a cylinder is increased by 60% and radius of base is decreased by 20%. What is percentage increase in it's volume?

A  105.6%

B  105.2%

C  104.8%

D  105.8%

Answer: C

## Question 145

$PA$ and $PB$ are two tangents from a point $P$ outside the circle with centre $O$. If $A$ and $B$ are points on the circle such that $\angle APB = 110°$, then $\angle OAB$ is equal to:

A  45°

B  55°

C  35°

D  70°

Answer: B

## Question 146

**Percentage of Employees in different Dept.(Total 450 Employees)**
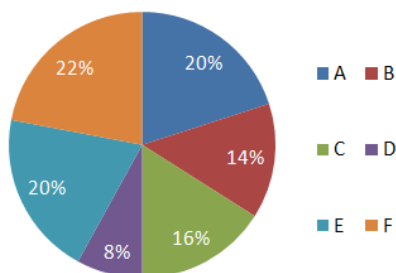


In the given pie-chart. what is the number of employees working in department A?

A  80

B  85

C  90

**D** 960

Answer: C

## Question 147
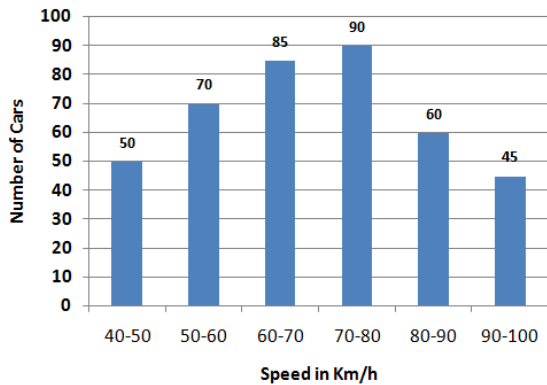


In the given histogram, in which class interval, the median lies?

**A** 60-70

**B** 80-90

**C** 70-80

**D** 50-60

Answer: A

## Question 148

If $x + \frac{1}{x} = 7$, then $x^3 + \frac{1}{x^3}$ is equal to:

**A** 343

**B** 322

**C** 385

**D** 364

Answer: B

## Question 149

In an examination, 47% passed in science and 51% failed in mathematics. If 42% failed in both subjects, what percentage passed in both subjects?

**A** 36%

**B** 40%

**C** 38%

**D** 42%

Answer: C

**Question 150**

$ABCD$ is a cyclic quadrilateral such that $AB$ is a diameter of the circle circumscribing it and $\angle ADC = 160°$. **What is the measure of the $\angle BAC$?**

A  $65°$

B  $70°$

C  $75°$

D  $60°$

Answer: B

# English

**Instructions**

For the following questions answer them individually

**Question 151**

**In the sentence identify the segment which contains the grammatical error.**
**No sooner he had left the house than there was a phone call for him.**

A  than there was

B  for him

C  No sooner

D  he had left

Answer: D

**Question 152**

**Select the antonym of the given word.**
**BOISTEROUS**

A  turbulent

B  excited

C  unruly

D  peaceful

Answer: D

**Question 153**

**Select the most appropriate meaning of the given idiom.**
**to be taken aback**

**A** to pay no heed

**B** to be very excited

**C** to be surprised

**D** to take something back

Answer: C

## Question 154

**In the sentence identify the segment which contains the grammatical error.**
**Although the toys are altogether in the cupboard they are not properly arranged.**

**A** in the cupboard

**B** Although the toys

**C** are altogether

**D** are not properly arranged

Answer: C

## Question 155

**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 fire broke out in a slum cluster in the capital yesterday** <u>for short circuit at the overhanging wires.</u>

**A** No improvement

**B** due to short circuiting on the overhanging wires.

**C** due to short circuit in the overhanging wires.

**D** for short circuit in the overhanging wires.

Answer: C

## Question 156

**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.**

**Australia had to deploy the army to tackle** <u>the devastating floods that inundate homes</u>, **schools and airports in the country's northeastern part.**

**A** the devastating floods that were inundating homes

**B** the devastating floods that inundated homes

**C** No improvement

**D** the devastating floods what inundate homes

Answer: B

**Question 157**

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.

All the professor of this college are provided with free bungalows.

A   Each professor of this college

B   No improvement

C   All professor of this college

D   All the professors of this college

Answer: D

**Question 158**

In the sentence identify the segment which contains the grammatical error.

Silver, as well as gold, are considered as precious metals.

A   as well as

B   as precious metals.

C   are considered

D   Silver

Answer: C

**Question 159**

Select the synonym of the given word.
AVOID

A   evade

B   face

C   pursue

D   approach

Answer: A

**Instructions**

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

Some 200 km from Leh are the villages of Dha. Haiiu. Garkone and Darchik on both Sides of the Indus River. inhabited by the Buddhist Dard Tribes. The villages are together called the "Aryan valley". "The word 'Dard' is derived from a Sanskrit word. 'Daradas'. which means people who live on hillsides." said Vn'endi'a Bangroo. assistant professor at Indira Gandhi National Centre for the Arts (IGNCA). who has extensively researched on their lives. He added people of this
region are cultru'ally and linguistically different from those in other parts of Ladakh. Among other researchers who have gone into the conumrnity's roots. there is a line of thought that the "Aryans of Ladakh" or the "Brokpas" might have descended fi'om soldiers in Alexander's army who had come to the region over 2.000 years ago. The Dard Aryans. however. do not docrunent their history. Bangroo said.

They rear goat and Sheep for milk and meat. and their festivals are based on the solar calendar. Bangroo visited the regions inhabited by

the Dard Aryan community back in 2017. where he helped setup two museums to archive their cultural heritage. Bangroo is of the view that their traditions go back 5.000 years; those who still follow the original customs worship trees. rivers and mountains. These tribals are mainly dependent on agricultru'e: the apricots grown here are considered among the best in the world and there are 12 varieties of grapes in the

region. Bangroo said grape-wine is very popular in the "Aryan valley".

A nrunber of researchers. as well as the tribals. perceive a threat to the heritage of the commruiity owing to modernisation. migration and religious conversion. The community now numbers about 4,000. Over the last few decades. many of them have embraced Islam or Buddhism. "The community prohibits marriage with outsiders to keep the gene pool intact. Of late. the Dard men have been migrating to other parts of the region in search of livelihood and manying outside

the tribe." Bangroo said. "The tribe is struggling to find a balance between modernity and traditional values." Also. after the Kargil War. development work in this region has been restricted. Some of the areas of the Aryan valley are out of bounds for outsiders. since it borders Pakistan-occupied Kashmir.

Members of the community said there are only three high schools in their villages and very limited resoru'ces for livelihood — mainly because of the harsh weather and difficult terrain. As such. they have no option but to migrate to cities for higher education and employment. They have demanded that the government set up a tribal hostel and declare the "Aryan valley" a heritage village to boost tourism.

**Question 160**

**The first paragraph of the passage mainly talks about**

A   the concerns of Dard Aryans.

B   what the demands of Dard Aryans are.

C   the customs of Dard Aryans.

D   who the Dard Aryans are.

   **Answer:** D

**Question 161**

**What is the main concern of the Dard Aryans?**

A   some people are converting their religion.

B   many people are migrating from the villages.

C   their heritage is facing a threat.

D   people of the community are becoming modern.

   **Answer:** C

**Question 162**

**What are the demands of the Dard Aryans from the government?**

A   to stop migration of people and set up a school

B   to provide livelihood and establish a tribal hostel

C   to set up a tribal hostel and declare the Aryan Valley a heritage Village

D   to boost tourism and take up development work in the valley

   **Answer:** C

**Question 163**

Which statement indicates best that the Dard Aryans is a community with ancient past?

A   Dar Aryans rear goat and sheep for milk and meat, and their festivals are based on the solar calendar.

B   Some scholars think that they might have descended from the soldiers in Alexander '5 army who had come about 2000 years ago.

C   The word 'Dard' is derived from a Sanskrit word, 'Daradas'. which means people who live on hillsides

D   Bangroo is of the View that their traditions go back 5,000 years; those who still follow the original customs worship trees, rivers and mountains.

**Answer:** D

**Question 164**

Which statement is NOT true according to the passage?

A   Dard Aryans have to migrate to cities for higher education and employment.

B   The valley has a difficult terrain and faces harsh weather conditions.

C   There are only three high schools in their villages and very limited resources for livelihood

D   The Aryans are culturally and linguistically the same as the other people of Ladakh.

**Answer:** D

**Instructions**
For the following questions answer them individually

**Question 165**

Select the wrongly spelt word.

A   equivocal

B   equality

C   equation

D   equivelant

**Answer:** D

**Question 166**

Select the most appropriate word for the given group of words.
an instrument for measuring time accurately in spite of motion or variations in temperature. humidity, and air pressure.

A   cryptograph

B   chronometer

C   crescograph

D   cardiograph

**Answer:** B

**Question 167**

Select the most appropriate word to fill in the blank.

We cannot postpone today's discussion on the issue of security of the colony ...... it is urgent.

A   in case

B   therefore

C   because

D   although

   Answer: C

**Question 168**

Select the synonym of the given word.
EXECUTE

A   occupy

B   variety

C   apply

D   implement

   Answer: D

**Question 169**

Select the most appropriate meaning of the given idiom.
Take heart

A   to take courage

B   to rebuke

C   to feel grieved

D   to assess the situation

   Answer: A

**Question 170**

Select the synonym of the given word.
REMEDY

A   cure

B   restore

C   bearing

D   healing

**Answer:** A

## Question 171

**Select the most appropriate meaning of the given idiom.**
**the icing on the cake**

**A** something that delays action

**B** something that makes one happy

**C** Something that is essential but difficult to do

**D** something that makes a good situation even better

**Answer:** D

## Question 172

**Select the most appropriate word to fill in the blank.**
**The flat .......... is nice but the approach road is too narrow and congested.**

**A** itself

**B** herself

**C** oneself

**D** himself

**Answer:** A

## Question 173

**Select the wrongly spelt word.**

**A** victory

**B** valuable

**C** villain

**D** vaccum

**Answer:** D

## Question 174

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

**A system of government in which priests rule in the name of Gods or a god.**

**A** oligarchy

**B** aristocracy

**C** plutocracy

**D** theocracy

**Answer:** D

**Question 175**

**Select the wrongly spelt word.**

A   rivalry

B   reign

C   rupee

D   recieve

   **Answer:** D

**Question 176**

**Select the synonym of the glven word.**
**EXCURSION**

A   holiday

B   tour

C   boating

D   trekking

   **Answer:** B

**Question 177**

**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.**

**Kumbh Mela, held at Prayagraj at the confluence of the rivers Ganga and Yamuna,  is knowing to be the bigger human gathering  in the world.**

A   is knowing to be the biggest human gathering

B   is known to be the biggest human gathering

C   No improvement

D   has been known to be the bigger human gathering

   **Answer:** B

**Question 178**

**Select the wrongly spelt word.**

A   devision

B   divert

C   devotion

D   devout

   **Answer:** A

**Question 179**

Select the most appropriate word to fill in the blank.

After the end of this lesson you ........... be able to write a paragraph on this topic.

A  can

B  could

C  will

D  must

   Answer: C

**Question 180**

Select the most approprlate word for the glven group of words.

a place where fish are kept

A  aviary

B  aquarium

C  herbarium

D  zoo

   Answer: B

**Question 181**

In the sentence identify the segment which contains the grammatical error.

A new research study has shown that long before they took up a strict vegetarian diet. the much loved pandas was a meat—eater.

A  that long before

B  was a meat-eater

C  has shown

D  took up

   Answer: B

**Question 182**

Select the wrongly spelt word.

A  provision

B  ommision

C  invasion

D  occasion

**Answer:** B

## Question 183

**Select the antonym of the given word.**
**ANTIQUE**

A   traditional

B   prehistoric

C   modern

D   conventional

   **Answer:** C

## Question 184

**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.**

**Officials say more than 10 million people take a dip at the confluence of the rivers Ganga and Yamuna   in auspicious days for Kumbh Mela.**

A   No improvement

B   in auspicious days during Kumbh Mela.

C   on auspicious days during Kumbh Mela.

D   on auspicious days for Kumbh Mela

   **Answer:** C

## Question 185

**Select the antonym of the given word.**
**AGILE**

A   nimble

B   lethargic

C   strong

D   confused

   **Answer:** B

## Question 186

**Select the most appropriate word to fill in the blank.**

**I saw her .......... your cupboard.**

A   to open

B   opening

**C** to opening

**D** opened

Answer: B

## Question 187

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

persons working at the same place

**A** contemporaries

**B** homogeneous

**C** fellows

**D** colleagues

Answer: D

## Question 188

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

a wooden drum in which beer or oil is stored

**A** bale

**B** cache

**C** gale

**D** barrel

Answer: D

## Question 189

Select the antonym of the given word.
DETER

**A** excite

**B** prevent

**C** dissuade

**D** encourage

Answer: D

## Question 190

Select the synonym of the given word.
NINCOMPOOP

**A** innocent

**B** bold

**C** clever

**D** foolish

   **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.
Passag:

The woolly mammoth was a very large elephant-like mammal that lived on Earth several thousand years ........... (1). Some mammoths grew to be four meters .......... (2) and the largest weighed almost nine tons. .......... (3) male and female mammoths had very large tusks and walked ............ (4) every continent except Australia ......... (5) South America. Sadly, these giant creatures became extinct.

**Question 191**

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

**A** before

**B** ago

**C** past

**D** ahead

   **Answer:** B

**Question 192**

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

**A** high

**B** low

**C** huge

**D** lofiy

   **Answer:** A

**Question 193**

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

**A** Every

**B** Each

**C** Either

**D** Both

   **Answer:** D

**Question 194**

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

A  into

B  on

C  over

D  under

   **Answer:** B

**Question 195**

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

A  and

B  also

C  or

D  but

   **Answer:** A

**Instructions**
For the following questions answer them individually

**Question 196**

Select the antonym of the glven word.
IMMACULATE

A  flawless

B  systematic

C  untarnished

D  messy

   **Answer:** D

**Question 197**

Select the most appropriate word to fill in the blank.

She left ......... Mumbai ......... the Rajdhani Express yesterday.

A  for; by

B  to; at

C  in; in

**D** out; by

Answer: A

## Question 198

**In the sentence identify the segment which contains the grammatical error.**

**From my hotel I could see that a flock of birds were flying over the lake.**

**A** over the lake

**B** I could see

**C** From my hotel

**D** were flying

Answer: D

## Question 199

**Select the most appropriate meaning of the given idiom.**
**get a gold star**

**A** to compliment someone

**B** to obtain possession of something

**C** to earn a merit point for doing well

**D** to get killed in war

Answer: C

## Question 200

**Select the most appropriate meaning of the given idiom.**
**Donkey's years**

**A** having long ears

**B** a very long time

**C** once in a while

**D** instantly

Answer: B