Reasoning

## Instructions

For the following questions answer them individually

## Question 1

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: A

## Question 2

Which two numbers should be interchanged to make the given equations correct?
$6 \times 3-8 \div 2+5=8 \div 2+3 \times 5-6$

A 6 and 2

B 8 and 6

C 3 and 5

D 5 and 6
Answer: D

## Question 3

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. Request : Order

A Summer: Heat

B Think: Thought
C Whisper: Shout

D Clean: Wash
Answer: C

## Question 4

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

1. Probation
2. Selection
3. Application
4. Confirmation
5. Appointment

A $3,2,5,4,1$

B $4,1,3,2,5$
C $3,2,5,1,4$

D 5, 1, 4, 2, 3
Answer: C

## Question 5

'Meat' is related to 'Vegetarian' in the same way as 'Alcohol' is related to '......')

A Water

B Smoker

C Dietician

D Teetotaller
Answer: D

## Question 6

'Tuesday' is related to 'Mars' in the same way as 'Thursday' is related to '.. $\qquad$ .'

A Venus

B Saturn

C Jupiter
D Mercury

Answer: C

Question 7
Which letter will replace the question mark (?) in the following series?
M, N, O, L, Q, J, ?, H

A J

B R

C K

D S
Answer: D

Question 8
Select the correct mirror image of the given figure when the mirrof is placed on the right of the figure.


A


B


C


D


Answer: B

## Question 9

In a code language, QUESTION is written as OPJUTFVR. How will FACTOR be written as in that language?

A SUPEGB
B QPUDBE
c BGDSPU
D SPUDBG
Answer: D

## Question 10

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


How many rich doctors are not happy?

A 15

B 17

C 9

D 26
Answer: B

Question 11
Which fraction will replace the question mark (?) in the following series?
13610
$4,5,7,11$, ?

A $\quad \begin{aligned} & 17 \\ & 27\end{aligned}$

B $\quad \begin{aligned} & 17 \\ & 21\end{aligned}$

C $\quad \begin{aligned} & 15 \\ & 19\end{aligned}$
D $\quad \begin{array}{r}15 \\ 23\end{array}$
Answer: C

## Question 12

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

1
2
3
4

A


B


C


D


Answer: B

## Question 13

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

A 14:94
B $12: 72$

C $6: 18$

D 8:32
Answer: A

Question 14
Three of the following four letter-clusters are alike in a certain way and one is different. Find the odd one out.

A AEIU
B ILOU

C EIOU
D AIOU
Answer: B

## Question 15

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


A 4
B 2
C 1

D 3
Answer: A

## Question 16

Select the option that is related to the third term in the same way as the second term is related to the first term. BYWD : DWUF :: AZYB : $\qquad$

A CXWD
B CXVB

C BZXC
D BYWE

Question 17
If $\mathrm{CAB}=12$ and $\mathrm{FED}=30$, then $\mathrm{HIDE}=$

A 44

B 52

C 68

D 48
Answer: B

## Question 18

The sequence of folding a piece of square paper and the manner in which the folded paper has been cut is shown in the 8 figures $\mathrm{X}, \mathrm{Y}$ and $Z$. How would this paper look when unfolded?


A


B


C



Answer: C

## Question 19

How many triangles are there in the following figure?


A 12

B 8

C 14

D 10
Answer: A

## Question 20

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


How many student dancers are swimmers but not cricket fans?

A 13

B 3

C 15

Answer: D

## Question 21

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

A $34: 7$

B $18: 9$

C 56:11

D 78:13
Answer: D

## Question 22

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 plants are trees.
All trees are bushes.
Conclusions:
I. Some bushes are plants.
II. All bushes are plants.
III. No bush is a plant.

A Only conclusion I follows.
B Only conclusions II and III follow.
C Only conclusion III follows.
D Only conclusions I and III follow.
Answer: A

## Question 23

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

A 10:99
B $9: 82$
C $4: 17$

D 5:26
Answer: A

## Question 24

Select the set of numbers that is similar to the following set of numbers.
$\{15,21,27\}$

A $\{40,55,75\}$
B $\{20,28,36\}$
C $\{25,40,56\}$
D $\{12,24,32\}$
Answer: B

## Question 25

Select the set of numbers that is similar to the following set of numbers.
$\{17,13,20\}$

A $\{12,19,29\}$
B $\{10,18,24\}$
C $\{9,15,23\}$
D $\{4,10,17\}$
Answer: D

## Question 26

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.
Memory : Amnesia

A Vision: Blindness
B Oldage: Senility
C Audition: Hearing
D Cholera: Epidemic
Answer: A

## Question 27

Select the option in which the given figure is embedded.


A


B


C


D


Answer: D

## Question 28

Which number will replace the question mark (?) in the following series?
$7,10,16,19,25$, ?

A 31

B 29

C 33
D 28
Answer: D

Select the word that will be odd in the following series.

A Ruskin Bond

B Jaswant Singh

C Javier Moro

D Preet Singh
Answer: D

## Explanation:

Except Preet Singh all others are famous authors

## Question 30

Select the option that is related to the third number in the same way as the second number is related to the fast number. 15 : 25 :: 24 : .......

A 45
B 32

C 35
D 40
Answer: D

## Question 31

Select the option in which the given figure is embedded.

A


B


C


D


Answer: A

## Question 32

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

A - and

B $\div$ and -

C $\times$ and +

D + and :
Answer: D

## Question 33

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

A $8: 25$

B $5: 15$

C 9:23

D 14:33
Answer: A

## Question 34

Select the option that is related to the third number in the same way as the second number is related to the first number. 8 : 81 :: 10 : .....

A 121

B 120

C 111
D 100
Answer: A

## Question 35

Which letter-cluster will replace the question mark (?) in the following series?
BZD, DXF, GUI, ?, PLR

A LRT
B KPN
c KQM
D MOQ
Answer: C

## Question 36

If HECK is coded as 94410 and DIG is coded as 588 , then how will BIKE be coded as?

A 38124
B 19113
C 38115
D 39105
Answer: A

## Question 37

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


How many high-achieving students are not players?

A 13
B 15

C 3

D 12
Answer: D

## Question 38

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

A VEBB

B UDWA
C VDWB

D VEWA
Answer: D

## Question 39

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

1. Sleep
2. Cold
3. Blanket
4. Winter
5. Warm
6. Shop

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

B $4,2,6,3,5,1$
C $6,3,2,1,4,5$

D $4,3,6,2,1,5$
Answer: B

## Question 40

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

A Gardening
B Tailor
C Blacksmith
D Carpenter
Answer: A

## Question 41

In a code language, BANKER is written as NABREK. How will STRING be written as in that language?

A RTSGNI
B RSTGIN
c TSIRGN

D RTGSNI
Answer: A

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


A


B


C


D


Answer: B

## Question 43

Which number will replace the question mark (?) in the following series?
$3,5,7,8,15, ?, 31,26$

A 18

B 14

C 24

D 21

## Question 44

Which of the following interchanges of signs and numbers would make the given equation correct?
$8 \div 2-6 \times 4+3 \Leftarrow-13$

A $\div$ and,+ 4 and 8
B $\quad$ and $+1,6$ and 4
C $\times$ and,- 2 and 6
D $\times$ and $\div 8$ and 6
Answer: D

## Question 45

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

A MKOH

B CLEH

C TRVN

D PYRU
Answer: A

## 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. 5 : 9

A $10: 29$

B 12:33

C $25: 79$
D 17:65
Answer: D

## Question 47

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 mangoes are fruits.
No fruit is vegetable.
Conclusions:
I. Some mangoes are vegetables.
II. Some fruits are mangoes.
III. No vegetable is a mango.

A Only conclusions II and III follow.
B Only conclusion II follows.
C Only conclusion I follows.
D Only conclusions I and III follow.
Answer: B

## Question 48

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

A Weep

B Jealous

C Angry
D Sad
Answer: A

## Question 49

Priya's school bus was facing north-west when it reached her school. After starting from her house, the bus took one left turn, one right turn and another left turn to reach her school. In which direction was the bus facing when it left Priya's house?

A North-West

B North-East

C South-East

D South-West
Answer: B

## Question 50

After starting from her house, Sameera walked a few metres towards the East. From there. she took a right turn and walked 100 m , and then took a left turn and walked 30 m . Finally, she took a left turn again and walked 40 m to reach the market. If the air distance between her/house and the market is 100 111. how far did Sameera walk towards the East initially from her house?

A 30 m

B 80 m
C 60 m

D 50 m
Answer: D

Instructions
For the following questions answer them individually

## Question 51

In January 2019, the Department of Science and Technology partnered with Doordarshan to launch two free-to-air channels DD Science and an Internet-based channel $\qquad$ which will offer live, scheduled play and video-on-demand on science topics.

A India Science

B Internet Science

C India Technology

D India Live
Answer: A

## Question 52

The smallest Union Territories ís $\qquad$

A Puducheny

B Daman and Diu
C Dadra and Nagar Haveli
D Lakshadweep
Answer: D

## Question 53

The Governor of Tamil Nadu Banwarilal Purohit presented the 'Sansad Ratna Awards' in Chetmai in January 2019. Which of the following MPs is NOT a recipient of Sansad Ratna Award?

A Supriya Sule
B Kirit Solanki

C N K Premachandran

D Nishikant Dubey
Answer: B

## Question 54

In January 2019, Prime Minister Narendra Modi inaugurated and laid the foundation stone for several development projects at Silvassa in Dadra and Nagar Haveli. Which of the following is NOT one of them?

A Door to door waste collection, segregation and processing of solid wastelih Dadra and Nagar Haveli digitally
B New IT policy for Dadra and Nagar Haveli

C A medical college in Dadra and Nagar Haveli

D An arts college in Dadra and Nagar Haveli

Answer: D

Question 55
The audible range of sound for human beings is from:

A 20 Hz to 200 kHz

B 10 Hz to 10 kHz

C 20 Hz to 20 kHz

D 10 Hz to 100 kHz
Answer: C

Question 56
The Hindu Prize 2018 for Fíction was awarded to $\qquad$ the English author of 'Requiem in Raga Mind' during the The Hindu Lit for Life 2019.

A Neelum Saran Gour

B Vinayak Vanua

C Rajiv Elipe

D Mamta Nainy
Answer: A

## Question 57

Queen Naikidevi is remembered as the woman who defeated $\qquad$ in 1178 CE .

A Muhammad bin Tughlaq
B Al-Salih Muhammad

C Muhammad al-Baqir

D Muhammad Ghori
Answer: D

## Question 58

Where is the Dachigam sanctuary located?

A Assam

B Jammu and Kashmir

C Chhattisgarh

D Karnataka

## Question 59

A study by Gitanjali Katlam and Souniya Prasad from Jawaharlal Nein University, Mohit Agatwal from Asian Adventures and Raman Kumar from Nature Science Initiative examined the relationship between $\qquad$ which was published in the journal 'Oirrent Science'.

A different animal species and their food
B animal and plant life

C animal type and behavior vis-a-vis the risk of plastic ingestion

D water scarcity and animals
Answer: C

## Question 60

The $\qquad$ dance form originated as a tribal dance in the forests of Odisha in the $18^{\text {th }}$ century and attained the status of a martial art-based dance form in the $19^{\text {th }}$ century.

A Kalaripayattu
B Chhobia

C Bawai

D Chhau

## Answer: D

## Question 61

Indian teen $\qquad$ cyclist created history by winning the country's maiden medal in track cycling at the world level in 2018.

A Esow Alben

B Bikram Singh
C Sreedhar Savanur

D Deborah Herold
Answer: A

## Question 62

The sky appears blue due to:

A Reflection of light
B Scattering of light
C Dispersion of light
D Refraction of light
Answer: B

## Question 63

The Treaty of Sagauli was signed between the British and the

A Gurkhas
B Nawab of Bengal
C Nawab of Awadh

D Marathas
Answer: C

## Question 64

Who was the Governor General of India during the first Anglo-Sikh War?

A Lord Dalhousie
B Lord Canning

C Lord Hardinge

D Lord Cornwallis
Answer: C

## Question 65

In September 2018, India's ace sprinter .....).... was appointed as Sports Ambassador of Assam.

A Anand Shetty
B Hima Das

C Tata Shankar
D Makhan Singh
Answer: B

## Question 66

$\qquad$ .' is aimed at the welfare of areas and people affected by mining-related operations. using the funds generated by District Mineral Foundations (DMFs).

A Pradhan Mantri UjjWala Yojana
B Pradhan Mantri Kaushal Vikas Yojana
C Pradhan Mantri Digidhan Vyapar Yojana

D Pradhan Mantri Khanij Kshetra Kalyan Yojana
Answer: D

Olfactory receptors are located in our:

A Eyes

B Ears

C Tongue

D Nose
Answer: D

## Question 68

'Rauf' is a folk dance associated with the state of

A Jammu and Kashmir
B Rajasthan

C Haryana

D Punjab
Answer: A

Question 69
The first Sheikh Saud International Prize for Materials Research has been awarded to $\qquad$ who is an Indian scientist in January 2019.

A Vikram Sarabhai

B M Visvesvaraya
C Meghnad Saha

D Chintamani Nagesa Ramachandra Rao
Answer: D

## Question 70

Article $\qquad$ of the Constitution of India states that the Judge of a High Court shall be appointed by the President with 0 the consultation of the Chief Justice of India and the Governor of the State.

A 72

B 21

C 217

D 201
Answer: C

## Question 71

The five kingdom concept of classification of organisms was given by:

A Carl Woese

B Robert Whittaker
C William Paley

D Charles Darwin
Answer: B

Question 72
Swadeshi Movement started in India during

A The Champaran Satyagrah of Gandhi

B The protest against Rowlatt Act

C The first non-co-operation movement of 1919-22
D Anti-Bengal Partition agitation
Answer: D

## Question 73

Dadra and Nagar Haveli is a union territory located between the states of Mahàrashtra and

A Andhra Pradesh

B Uttarakhand

C West Bengal

D Gujarat
Answer: D

## Question 74

$\qquad$ is are being considered an alternative to reduce the country's crude oil imports worth 27 lakh crore. It They can also be a potential weapon to fight increasing pollution.

A Air purifiers
B Biofuels

C Extractor fans

D Phytoremediation
Answer: B

## Question 75

$\qquad$ is the study of viruses.

A Parasitology
B Virology
C Protozoology
D Mycology
Answer: B

## Question 76

Apiculture is the technique of scientific rearing of . $\qquad$ in a specially desígned wooden box.

A Silkworms

B Termites

C Honey bees
D Moths
Answer: C

## Question 77

$\qquad$ has become the youngest man in the world to have scaled-seven highest peaks and volcanic summits across continents.

A Santosh Yadav

B Satyarup Siddhanta
C Raj Singh Dharmashaktu
D Mohan Singh
Answer: B

## Question 78

The Battle of Chausa was fought between Humayun and Slier Shah Suri on 26 June in the year

A 1639

B 1539

C 1729
D 1440
Answer: B

## Question 79

The spectrum of light was first explained by

A Isaac Newton
B Neils Bohr

C Galileo Galilei

D Albert Einstein
Answer: A

## Question 80

.......... has emerged as the world's most dynamic city among 131 major established and emerging business hubs globally as per JLL City Momentum Index 2019.

A Bengalurn

B Delhi

C Hyderabad

D Chennai
Answer: A

## Question 81

Why do water droplets always take a/round shape when dropped onto plane surfaces?

A Due to the presence of Eddy Currents in the air
B Due to atmospheric pressure
C Due to gravity
D Due to exersion of surface tension by the molecules Answer: D

## Question 82

Which of the following statements is NOT true about the Export-Import Bank of India (EXIM Bank)?

A Its main objective is to provide financial assistance to promote Indian exports.
B It is a premier export finance institution of India.
C It was established in 2014 under the Export-Import Bank of India Act.
D The Bank provides assistance in helping Indian firms in their globalization efforts
Answer: C

## Question 83

Pune-based organisation $\qquad$ conducted a study using a $15 \%$ M-15 methanol blend in vehicles and tested them for $3,000 \mathrm{~km}$ to evaluate emissions in real-world conditions as well as to check the performance of the vehicles.

A Automotive Research Association of India (ARAI)

B Research Association of India (RAI)
C Automotive Organisation (AO)
D Vehicle Organisation of India (VOI)
Answer: A

## Question 84

Who inaugurated the National Museum of Indian Cinema in Mumbai in Jan 2019.

A Narendra Modi

B Amitabh Bachehan

C Ram Nath Kovind
D Devendra Fadnavis
Answer: A

## Question 85

Which Bharatiya Janata Party leader was bestowed with 'Sansad Ratna Award' for distinguished performance as a parliamentarian in January 2019?

A Rao Inderjit Singh
B Virendra Kashyap
C Anurag Thakur

D Rajesh Chudasama
Answer: C

## Question 86

In January 2019, the Competition Commission of India (CCI) approved a deal wherein Samara Capital-backed witzig 6 Advisory Services and Amazon will acquire $\qquad$ which operates a supermarket store chain called 'More'.

A Future Group

B Godrej Consumer Products Ltd
C Reliance Retail

D Aditya Birla Retail Ltd
Answer: D

## Question 87

In January 2019, Microsoft India launched á new e-commerce platform called 're-weave.in' under Project ReWeave to aid hand loom weavers in Telangana. Which of the following is NOT a benefit of the e-commerce platform?

A It will decelerate the process of reviving traditional forgotten Indian art.
B It will connect artisans to the buyers directly, enabling them to expand to newer customers and markets.

C It will help weavers increase their income and earn a sustainable livelihood.
D It will showcase signature collections created by the weaver communities.
Answer: A

## Question 88

The Nobel Prize is awarded in 6 categories each year. Which of the following is NOT one of them?

A Mathematics

B Literature
C Physics
D Economics
Answer: A

## Question 89

In January 2019, the Union Ministry of $\qquad$ started a 'Know Your Budget' series on its. "IWitter handle to educate the 9 general public about the budgetary process.

A Corporate Affairs
B Human Resource Development
C Finance

D Commerce and Industry
Answer: C

## Question 90

A not-for-profit organisation 'Youth for Equality' has moved the Supreme Court by questioning the constitutional validity of the $\qquad$ Constitutional Amendment Act which provides 10\% quota foreconomically weaker sections.

A $100^{\text {th }}$

B $143^{\text {rd }}$

C $99^{\text {th }}$
D $103^{\text {rd }}$
Answer: D

## Question 91

In January 2019, the Union Cabinet headed by Prime Minister Narendra Modi approved a capital infusion of ₹ $\qquad$ in state-owned Export-Import/Bank of India (EXIM Bank) to expand its business.

A 9,000 crore

B 2,000 crore
C 6,000 crore

D 4,000 crore
Answer: C

## Question 92

Which team has won the inaugural Pro Volleyball League Title held in February 2019?

A Ahmedabad Defenders

B Black Hawks Hyderabad
C Chennai Spartans

D Calicut Heroes
Answer: C

## Question 93

The famous festival of 'Tsokun Samai' is celebrated by the people of which state to invoke blessings for a rich harvest?

A Nagaland
B Meghalaya
C Mizoram

D Assam
Answer: A

## Question 94

As of January 2019. who holds the portfolio of Ministry of Science and Technology?

A Manohar Parrikar
B Harsh Vardhan
C Pivush Goval
D Prakash Javadekar
Answer: B

## Question 95

Which of the following states does NOT share a border with Bangladesh?

A Tripura

B Manipur
C Meghalaya

D Mizoram
Answer: B

## Question 96

"The Origin of Species" was written by

A William Paley
B Charles Darwin

C Erasmus Darwin

D Carolus Linnaeus
Answer: B

## Question 97

The Maharana Pratap Sagar reservoir/on the river Beas in Himachal Pradesh is also known as

A Ukai Dam

B Tehri Dam
C Polly Dam
D Dharoi Dam
Answer: C

## Question 98

What was the paternal name of Swami Dayanand Saraswati?

A Krishna Shankar
B Mool Shankar
C Om Shankar

D Narayan Shankar
Answer: B

## Question 99

Under which of the following acts did the Government of India set up Telecom Regulatory Authority of India (TRAI)?

A Telecom Regulatory Authority of India Act, 2003
B Telecom Regulatory Authority of India Act, 2001
C Telecom Regulatory Authority of India Act, 1997

D Telecom Regulatory Authority of India Act. 2005
Answer: C

Question 100
In December 2018, $\qquad$ won the Women's Singles title at the National Squash Championship held in Delhi.

A Bhuvaneshwari Kumari

B Joshna Chinappa
C Sachika Balvani
D Aparajitha Balamurukan
Answer: B

## Quant

Instructions
For the following questions answer them individually
Question 101
The efficiencies of $A, B$ and $C$ are in the ratio $4: 5: 6$. Working together. they can complete a work in 12 days. In how many days will A alone be able to complete that work?

A 30

B 45

C 40

D 36
Answer: B

Question 102
A sphere of radius 6 cm is melted and recast into spheres of radius 2 cm each. How many such spheres can be made?

A 25

B 36
C 24

D 27
Answer: D

Question 103
If the six digit number $4 x 4 y 96$ is divisible by 88 , then what will be the value of $(x+2 y)$ ?

A 11

B 12
C 13

D 10
Answer: 0

Question 104
If $A$ 's income is $\mathbf{4 0 \%}$ more than the income of $B$. then what percentage of $B$ 's income is less than income of $A$ ?

A $277^{4} \%$

B $287^{5} \%$
C $27{ }^{5} \%$
D $287^{4} \%$
Answer: D

## Question 105

If a train runs at $60 \mathrm{~km} / \mathrm{h}$, it reaches its destination 15 minutes late. But, if it runs at $80 \mathrm{~km} / \mathrm{h}$. it is late by 7 minutes only. The right time for the train to cover its journey is:

A 17 minutes

B 18 minutes
C 20 minutes
D 21 minutes
Answer: A

## Question 106

From the top of a 10 m high building, the angle of elevation of the top of a tower is $60^{\circ}$ and the angle of depression of the foot of the tower is $\phi$, such that $\tan \phi=3$. What is the height of the tower to nearest metres?

A 35 m

B 36 m

C 34 m

D 33 m

## Answer: B

Question 107
A sum off ₹ 20,000 is invested for 15 months at the interest of $10 \%$ per annum compounded half yearly. What is the percentage gain, correct to one decimal place, at the end of 15 months?

A $13.6 \%$

B $13.4 \%$
C $13.0 \%$

D 12.5\%
Answer: C

Question 108


In the given histogram, what is the mean height of all students correct to one decimal place?

A 116.8 cm

B $\quad 116.2 \mathrm{~cm}$
C 115.6 cm

D $\quad 114.7 \mathrm{~cm}$
Answer: D

Question 109
$P A$ and $P B$ are two tangents to a circle with centre $O$. from a point $P$ outside the circle. $A$ and $B$ are points on the circle. If $\angle A P B=40^{\circ}$, then $\angle O A B$ is equal to:

A $20^{\circ}$

B $40^{\circ}$

C $25^{\circ}$

D $50^{\circ}$
Answer: A

## Question 110

Two pipes A and B can fill a tank in 6 hours and 9 hours respectively. They are opened alternately for 1 hour each, starting with pipe A first. In how many hours will the tank be filled ?

A 6

B 5
C 4

D 7
Answer: D

Instructions
Read the given pie-chart and answer the questions below.

Degree of Cost incurredin different Expenditure(Total ₹ 4,50,000)


## Question 111

what is the total expenditure (in percent) on labour charges?

A $25 \%$
B $30 \%$

C $18 \%$

D 20\%
Answer: B

## Question 112

the expenditure on steel is what percent of the expenditure on cement?

A $55 \%$
B $40 \%$

C $50 \%$

D 45\%
Answer: C

## Instructions

For the following questions answer them individually
Question 113
If $\triangle A B C \sim \triangle Q P R, \underset{a r(\triangle P Q R)}{\operatorname{ar}(A B C)}={ }_{4}^{9}, A C=12 \mathrm{~cm}, A B=18 \mathrm{em}$ and $B C=15 \mathrm{~cm}$ then $P R$ is equal to:

A 12 cm

B 8 cm
C $\quad \begin{array}{r}20 \\ \mathrm{~cm}\end{array}$

D 10 cm
Answer: D

## Question 114

In an examination, $54 \%$ of the candidates passed in science and $42 \%$ failed in mathematics. If $32 \%$ failed in both 14 subjects, what percentage passed in both subjects?

A $32 \%$

B 56\%

C $44 \%$
D $48 \%$
Answer: C

Question 115
A sum of ₹ $\mathbf{1 5 , 0 0 0}$ is invested partly at $12 \%$ per annum and the remaining at $10 \%$ per annum simple interest. If the total interest at the end of 2 years is ₹ 3,344 how much money was invested at $10 \%$ per annum

A ₹ 6,600

B ₹ 6,400

C ₹ 6,200
D ₹ 6,500
Answer: B

## Question 116

The side of a rhombus is 5 cm and one of its diaconal is 8 cm . What is the area of the rhombus?

A $40 \mathrm{~cm}^{2}$

B $20 \mathrm{~cm}^{2}$

C $30 \mathrm{~cm}^{2}$

D $24 \mathrm{~cm}^{2}$
Answer: D

Number of Boys and Girls in College A, B, C, D and E


In the given bar graph, in which college the difference between the percentage of boys and girls is maximum, by taking total number of students as base for that college?

A A

B E

C B

D D
Answer: D

Question 118


In the given histogram. in which class does the median height of the students lie?

A $105-110$

B 110-115
C $115-120$
D $\quad 120-125$
Answer: B

Question 119
Two numbers are in the ratio $4: 5$. If their HCF is 16 . then the sum of these two numbers is:

A 150

B 160
C 124

Answer: D

## Question 120

$4 \stackrel{4}{5} \div \stackrel{3}{7}$ of $7+\stackrel{4}{5} \times \stackrel{3}{10}-\frac{1}{5}$ is equal to:

A $\begin{array}{r}34 \\ 25\end{array}$

B $\quad$| 41 |
| :--- |

C $\quad 8$
D $\quad \begin{aligned} & 7 \\ & 5\end{aligned}$
Answer: B

## Question 121

What is the sum of digits of the least number. which when divided by 15,18 and 24 leaves the remainder 8 in each case and is also divisible by 13 ?

A 18
B 16
C 15
D 17
Answer: D

Question 122
A shopkeeper marks his aoods at a price such that after giving a discount of $25 \%$ he gains $20 \%$. If the cost price of the article is ₹ 460 , what is its marked price?

A ₹ 736

B ₹ 725
C ₹ 748
D ₹ 752
Answer: A

## Question 123

If $(x-5)^{3}+(x-6)^{3}+(x-7)^{3}=3(x-5)(x-6)(x-7)$, then what is the value of $x$ ?

A 7
B 5

C 18
D 6
Answer: D

Question 124
A shopkeeper sold two articles for ₹ 9471 each. On one, he gained $23 \%$ and on the other, he lost $23 \%$. What is the overall percentage gain or loss?

A $5.29 \%$ gain
B $5.29 \%$ loss
C $6.29 \%$ loss
D $6.29 \%$ gain
Answer: B

Question 125
In a class of 50 students. $40 \%$ are girls. The average weight of the boys is 62 kg and that of the girls is 58 kg . What is the average weight (in kg ) of the whole class?

A 60.4
B 60.2

C 60.8
D 60.6
Answer: A

## Question 126

The radius of a cylinder is increased by 150 cm and its height is decreased by 20 cm . What is the percentage increase in its volume?

A $80 \%$
B $400 \%$

C $500 \%$

D $600 \%$
Answer: B

Question 127
The value of $\left[\begin{array}{l}\sin ^{2} 24^{\circ}+\sin ^{2} 66^{\circ} \\ \left.\cos ^{2} 24^{\circ}+\cos ^{2} 66^{\circ}+\sin ^{2} 61^{\circ}+\cos 61^{\circ} \sin 29^{\circ}\right] \text { is equal to: }\end{array}\right.$

A 1
B 3

C 0

D 2
Answer: D

## Question 128

If $\tan x=\cot \left(45^{\circ}+2 x\right)$, then what is the value of $x$ ?

A $45^{\circ}$

B $20^{\circ}$

C $15^{\circ}$
D $\begin{gathered}45^{\circ} \\ 2\end{gathered}$
Answer: C

Question 129
A, B and C started a business by investing ₹ 55,000 , $₹ 65,000$ and $₹ 75,000$ respectively. A is a working partner and gets $20 \%$ of the profit and the remaining is distributed in the proportion of their investments. If total profit is ₹ 87,750 , what is the share of $A$ ?

A ₹ 23,000
B ₹ 37,350

C ₹ 27,000

D ₹ 37,500
Answer: B

Question 130
Number of Boys and Girls in College $A, B, C, D$ and $E$


In the given bar graph, what is the average number of girls in all colleges?

A 550
B 560

C 540
D 600
Answer: B

## Question 131

In $\triangle A B C, \angle A=50^{\circ}$. In sides $A B$ and $A C$ are produced to the point $D$ and $E$. If the bisectors of $\angle C B D$ and $\angle B C E$ meet at the point $O$, then $\angle B O C$ is equal to:

A $55^{\circ}$

B $75^{\circ}$

C $65^{\circ}$

D $40^{\circ}$
Answer: C

## Question 132

The successive discounts of $20 \% .10 \%$ and $15 \%$ is equivalent to a single discount of:

A $42.2 \%$

B $43.5 \%$

C $38.8 \%$

D $44.5 \%$
Answer: C

## Question 133

What is the sum of the mean proportional between 10.8 and 4.8 and the third proportional of 2 and 4 ?

A 10.2

B 11.2

C 8.2

D 15.2
Answer: D
The square root of which of the following is a rational number?

A 6250.49

B $\quad 1250.49$

C 5768.28

D 1354.24
Answer: D

## Question 135

If $x+\stackrel{1}{x}=5$, then $x^{3}+\stackrel{1}{x}^{3}$ is equal to:

A 125

B 130

C 145

D 110
Answer: D

Question 136


In the given histogram, what percentage of students have height in the interval of 105-110?

A $17 \%$

B 16.5\%

C $17.5 \%$

D $18 \%$
Answer: C

Question 137
The sides of a triangle are $10 \mathrm{~cm}, 24 \mathrm{~cm}$ and 26 cm . At each of its vertices, circles of radius 3.5 cm are drawn. What is the area of the triangle excluding the portion covered by the sectors of the circles? $\left(\pi=\begin{array}{c}22 \\ Z\end{array}\right)$

A $100.75 \mathrm{~cm}^{2}$

B $81.5 \mathrm{~cm}^{2}$

C $75.75 \mathrm{~cm}^{2}$

D $78.25 \mathrm{~cm}^{2}$
Answer: A

Number of Boys and Girls in College A, B, C, D and E


In the given bar graph, what is the ratio of the total boys and girls in all 5 colleges?

A $13: 12$

B 14:15

C 15:14

D $12: 13$
Answer: C

Question 139
If $a^{3}-b^{3}=208$ and $a-b=4$, then $(a+b)^{2}-a b$ is equal to:

A 42

B 52

C 32

D 38
Answer: B

## Question 140

$675 \times 675 \times 675+325 \times 325 \times 325$
$67.5 \times 67.5+32.5 \times 32.5-67.5 \times 32.5$ is equal to:

A $\mathbf{1 0 , 0 0 0}$

B 100

C 1,00,000

D 1,000
Answer: C

## Question 141

A ladder leaning against a wall makes an angle $\alpha$ with the horizontal ground such that tan $\alpha={ }_{4}^{3}$ If the foot of the ladder is 5 m away from the wall, what is the length of the ladder?

A 4.5 m
B 6.25 m
C 5.25 m

D 3.75 m
Answer: B

Question 142
$9{ }_{4}^{3} \div\left[2{ }_{6}^{1}+\left\{4{ }_{3}^{1}-\left(2{ }_{2}^{1}+{ }_{4}^{3}\right)\right\}\right]$ is equal to:

A 4
B 3

C $\quad \begin{gathered}15 \\ 4\end{gathered}$

D $\quad \begin{gathered}17 \\ 4\end{gathered}$
Answer: B

Question 143
$A B C D$ is a cyclic quadrilateral such that $A B$ is a diameter of the circle circumscribing it and angle $A D C=140^{\circ}$. Then angle $B A C$ is equal to:

A $60^{\circ}$

B $38^{\circ}$

C $50^{\circ}$

D $40^{\circ}$
Answer: C

Question 144
Degree of Cost incurredin different Expenditure(Total ₹ 4,50,000)


In the given pie-chart, what is the ratio of the total expenditure on steel, cement and bricks to the total expenditure on labour and miscellaneous expenses?

A $4: 5$
B 9:11

C $3: 7$
D $3: 5$
Answer: B

Question 145
24 persons working 8 hours a day can complete 2 units of a work in 10 days. How many persons are required to complete 4 units of that work, if they work 6 hours a day for 16 days?

A 40
B 36

C 48
D 32
Answer: A

Question 146
The average of 16 numbers is 43 . The average of the first 7 numbers is 45 and the average of the next 6 numbers is 52 . If the $14^{\text {th }}$ number is 11 less than the $15^{t h}$ number and is 5 more than the $16^{t h}$ number, then the average of the $15^{t h}$ and $16^{t h}$ number is:

A 48.5

B 48

C 47.5
D 49
Answer: B

## Question 147

Pipes A and B can fill a tank in 6 hours and 9 hours respectively and pipe $C$ can empty the full tank in 12 hours. If all three pipes are opened together when a tank is empty, in how many hours will $35 \%$ of the tank be filled?

A 1.9

B 1.6

C 1.1
D 1.8
Answer: D

## Question 148

A boat can go 30 km downstream and 24 km upstream in 2 hours 27 minutes. Also, it can go 20 lon downstream and 8 km upstream in 74 minutes. What is the speed of the boat in still water in $\mathrm{km} / \mathrm{h}$ ?

A 22

C 20
D 24
Answer: A

Question 149
The price of sugar has decreased by $15 \%$. By what percentage can a person increase the consumption so that there is no change in the expenditure?

A $\quad 300$

B $\quad \begin{array}{r}50 \\ 3\end{array}$
C $\quad \begin{aligned} 20\end{aligned}$

D $\quad 300 \%$
Answer: D

## Question 150

5 cubes, each of edge 4 cm , are joined end to end. What is the total surface area of the resulting cuboid?

A $486 \mathrm{~cm}^{2}$

B $526 \mathrm{~cm}^{2}$

C $352 \mathrm{~cm}^{2}$

D $720 \mathrm{~cm}^{2}$

## Answer: C

## English

Instructions
For the following questions answer them individually
Question 151
Identify the segment in the sentence. which contains the grammatical error.
Why she was angry with her son?

A she was

B her son

C angiy with

D Why
Answer: A

## 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 substitution required.
The cause of the disaster has not yet known but an enquiry has been set up to find out what happened.

A No substitution required

B have not yetbeen known

C was not yet known

D is not yet known
Answer: D

## Question 153

Select the word, which means the same as the group of words given.
A fortress typically one on high ground above a city

A colossus

B palace

C tower

D citadel
Answer: D

## Question 154

Select the most appropriate meaning of the underlined idiom in the given sentence. He has set up his business now as he knows the ins and outs of it.

A details

B importance

C difficulties

D usefulness
Answer: A

Question 155
Identify the segment in the sentence, which contains the grammatical error. The old man climbed seven floors with hardly no effort at all.

A at all

B climbed

C hardly no effort

D The old man
Answer: C

## Question 156

Identify the segment in the sentence, which contains the grammatical error. In this novel I came across some words which meaning I do not know.

A which meaning
B In this novel

C do not know

D came across
Answer: A

## Question 157

Select the antonym of the given word.
VANITY

A timidity
B humility
C dignity

D pride
Answer: B

## Question 158

Select the most appropriate word to fill in the blank. You have travelled a long way. You ,......... be tired.

A should

B can

C must

D could
Answer: C

Question 159
Select the synonym of the Given word.
MASSIVE

A strong

B thick

C solid

D huge
Answer: D

## Instructions

Read the following passage and answer the questions given after it.
Passage:
Tutankhamun was an Egyptian pharaoh who was buried in a lavish tomb filled with gold artifacts in the Valley of the Kings. His tomb was discovered in 1922 by an archaeological team led by British Egyptologist Howard Carter.

The tomb was mostly intact, an extraordinary find given that most of the tombs in the Valley of the Kings had been looted in ancient times. But while Tutankhamun's tomb was lavish, historical and archaeological evidence indicates that the young pharaoh was sickly and spent his short rule trying to undo a religious revolution that his father had started.
Tutankhaten (as he was called at birth) was born around the year 1341 B.C. His father was the pharaoh Akhenaten, a revolutionary pharaoh who tried to focus Egypt's polytheistic religion around the worship of the sun disc, the Aten. In his fervor, Akhenaten ordered the names and images of other Egyptian deities to be destroyed or defaced.

Tutankhamun ascended to the throne around/7332 B.C., when he was about 9 years old. Given his young age he would have relied heavily on his advisers. At some point his name was changed to Tutankhamun, removing the word "aten" - a reminder of his father's religious revolution - from his name.

Tutankhamun also condemned his father's actions in a stela (a stone with inscription) found at Karnak, saying that Akhenaten's religious revolution caused the gods to ignore Egypt. Part of the stela reads "the temples and the cities of the gods and the goddesses, starting from Elephantine as far as the Delta marshes ... were fallen into decay and their shrines were fallen into ruin, having become mere mounds overgrown with grass ... The gods were ignoring this land..."

Archaeological evidence indicates that Tutankhamun suffered from ill health. A study of his remains published in 2010 found that he suffered from a variety of maladies, including malaria and Kohler disease (a rare bone disorder of the foot). A number of canes have been found in Tutankhamun's tomb, finds that support the idea that the pharaoh had difficulty walking at times.

It's not known what killed Tutankhamun. There have been numerous hypotheses put forward over the years. It's been suggested that he died from an infection caused by a broken leg or from injuries suffered in a chariot accident.
The boy king died in 1323 B.C. around the age of 18 . His death was unexpected, and his tomb appears to have been finished quickly. Microbes found on the wall of the tomb indicate that the paint on the wall wasn't even dry when the tomb was sealed.
Howard Carter'steam discovered the tomb's entranceway on November 4, 1922, and on November 26 they got inside.
While the treasures were incredible, the tomb was unusually small for a pharaoh's burial, containing only 110 square meters ( 1,184 square feet) of floor space. The tomb's small size may have been because the pharaoh died young and unexpectedly and there wasn't time to carve put a larger tómb.

## Question 160

What is the main theme of the passage?

A The tomb of Tutankhamun

B The life and death of the boy Pharaoh
C The death of Tutankhamun and his burial

D The discovery of an incredible treasure
Answer: B

## Question 161

The discovery of a number of canes in the tomb indicates that Tutankhamun:)

A had difficulty in walking.

B suffered from an infection.
C had fallen from a chariot.

D suffered from Malaria.
Answer: A

## Question 162

Tutankhainun's father was a revolutionary. What was his revolution?

A He wanted the Egyptians to/worship one God Aten.
B Egyptians were asked to have no keligionfand no god.
C He wanted his people to be polytheistic.
D Images and names of allthe Egyptian deities had to be destroyed.
Answer: A

## Question 163

Tutankhainuth had a short/rule. Most of his time was used in:

A looking after the well- being of his people

B erecting stelas at different places

C trying to undo the religious revolution of his father
D fighting with his own diseases
Answer: C

Question 164
Which statement is NOT true according to the passage?

A Tutankhamun's tomb was lavishly filled with Gold artifacts.
B Howard Carter's team discovered the tomb's entranceway on November 26, 1922.
C The tomb was unusually small for a pharaoh's burial ${ }_{i}$
D The tomb appears to have been finishedquickly as the paint wasn't dry when it was sealed
Answer: B

Instructions
For the following questions answer them indiyidually

## Question 165

Select the most appropriate word to fill in the blank. Our new office is equipped $\qquad$ all the latest technology.

A by

B from
C about

D with
Answer: D

Question 166
Select the wrongly spelt word.

A gobbel

B gloomy
C gloss

D glutton
Answer: A

Question 167
Select the word. which means the same as the group of words given.
the keeper of a museum

A compere

B curator

C conservator

D commissioner
Answer: B

Question 168
Select the antonym of the given word.
LIVELY

A bubbly

B active

C sharp

D sluggish
Answer: D

Question 169
Select the most'appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select No substitution required.
Every year our association is having a meeting to elect the officers.

A are having a meeting

B No substitution required
C having a meeting

D has a meeting
Answer: D

## Question 170

Select the antonym of the given word. ENTHUSIASM

A fervor

B nervousness

C zeal

D apathy
Answer: D

## Question 171

Select the wrongly spelt word.

A victorious
B precious
C couragious

D curious
Answer: C

## Question 172

Select the word. which means the same as the group of words given.
A large enclosure for keeping the birds in

A menagerie
B aviary
C aquarium

D apiary
Answer: B

## Question 173

Select the most appropriate word to fill in the blank.
The assistant in the library picked up the books from the tables and/put ........ back on the shelves.

A its
B it

C them

D they
Answer: C

Question 174
Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select No substitution required.
Everybody wants to be winning a prize in the arts competition.

A want winning

B No substitution required
C wants to win

D wants to have won
Answer: C

Question 175
Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, select No substitution required.
Thirteen miners were trapped inside a coat mine due to flooding from a nearby liver yesterday.

A were trapped into a coal mine
B trapped inside a coal mine
C have been trapped inside a coal mine
D No substitution required
Answer: D

## Question 176

Select the most appropriate meaning of the underlined idiom in the given sentence. After getting the news of his promotion. he was in high spirits.

A mad

B joyful

C drunk

D hopeful
Answer: B

## Question 177

Select the synonym of the given word.

## FOREGO

A forget

B give up
C go ahead
D ban
Answer: B

## Question 178

Select the wrongly spelt word.

A discomfort
B dissappoint
C disallow

D disappear
Answer: B

## Question 179

Select the word, which means the same as the group of words given. a person who eats human flesh

A scavenger
B tribal

C carnivore

D cannibal
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:
What does the word scout mean? During a war a soldier is chosen to go ......(1) of an army in order to ........(2) out where the enemy is. He then (3) back to the commander all the .......(4) he has gathered about the $\qquad$ (5). Such a soldier is known as a scout.

## Question 180

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

A after

B before
c behind
D ahead
Answer: D

Question 181
Select the most appropriate option to fill in blank No. 2

A call

B find

C bring

D carry
Answer: B

Question 182
Select the most appropriate option to fill in blank No. 3

A reports

B carries

C sends

D tells
Answer: A

## Question 183

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

A news

B messages

C information

D communications
Answer: C

## Question 184

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

A enemy

B soldiers
C army

D commanders

Instructions
For the following questions answer them individually
Question 185
Identify the seznent in the sentence. which contains the Grammatical error.
I thanked him for his advices.

A him

B for his

C I thanked

D advices
Answer: D

Question 186
Select the synonym of the given word.
HARASS

A bother

B help

C refuse

D care
Answer: A

## Question 187

Select the most appropriate meaning of the underlined idiom in the given sentence. Many people in our country like to feather their own nest from the money they raise for social work.

A enrich oneself by dishonest means

B provide comforts in one's house

C achieve something and be proud of it
D make one's family comfortable
Answer: A

## Question 188

Select the antonym of the given word.
HOLLOW

A vacant

B shallow
C solid

D narrow
Answer: C

## Question 189

Select the word, which means the same as the group of words given.
a medical specialist who administers drugs for relieving. pain during. surgery

A dermatologist

B anesthetist

C nephrologist

D analgesic
Answer: B

Question 190
Select the mostrappropriate option to substitute the underlined segnent in the given sentence. If there is no need to substitute it, select No substitution required.
This is the first time anybody have explored into this part of the country.

A anybody has explored this part

B anybody have explored this part
C No substitution required

D anybody has explored into this part
Answer: A

## Question 191

Select the wrongly spelt word.

A esteem

B estimate

C establish

D essencial
Answer: D

## Question 192

Select the most appropriate meaning of the underlined idiom in the aiven sentence.
A friend is no friend if he leaves you in the lurch.

A take advantaae of someone

B leave for one's own work
C make a fool of someone

D leave someone in a helpless condition
Answer: D

## Question 193

Identify the segment in the sentence. which contains the Erammatical error.
To my point of yiew he should not have behaved in such a manner.

A To my point of view
B behaved

C in such a manner

D should not have
Answer: A

## Question 194

Select the synonym of the given word.
AMPLIFY

A electrify

B supply

C magnify

D satisfy
Answer: C

## Question 195

Select the synonym of the given word.
REPLETE

A restful

B calm

C occupied

D full
Answer: D

## Question 196

Select the wrongly spelt word.

A blister
B blind

C blossum
D blemish
Answer: C

Question 197
Select the most appropriate word to fill in the blank.
You will not be allowed in the Film Festival $\qquad$ you have a photo ID card.

A unless

B whether

C in case

D if
Answer: A

Question 198
Select the most appropriate word to fill in the blank.
I looked at my damaged car and $\qquad$ how much it would cost to repair it.

A wonders

B wondered

C wonder

D wondering
Answer: B

Question 199
Select the most appropriate meaning of the underlined idiom in the given sentence. Don't take it seriously. He was simply pulling you leg.

A scolding someone for nothing.
B playing a joke with someone
C speaking in a harsh tone
D trying to comfort soméne
Answer: B

Question 200
Select the antonym of the given word.
ADVERSITY

A
casualty

B calamity
C misfortune

D prosperity
Answer: D

