## SSC CPO 13th-March-2019-Shift-1

## Reasoning

## Instructions

For the following questions answer them individually

## Question 1

Which two numbers should be interchanged to make the given equation correct?
$4 \times 2-8+9 \div 3=9 \div 3+4 \times 2-8$

A 3 and 4

B 3 and 2

C 8 and 3

D 8 and 4
Answer: D

## Question 2

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

(X)

(Y)

(Z)

A


B


C


D


Answer: A

## Question 3

Which letter-cluster will replace the question mark (?) in the following series?
CGE, HJI, LPN, SUT, ?

A XBZ

B YAZ

C YCA

D XZY
Answer: C

Question 4
Three of the following four number-pairs are alike in a certain way and one is different. Find the odd one out.

A 865:722

B $378: 255$
C 756:633

D 967:844
Answer: A

## Question 5

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

A Potato

B Carrot

C Cabbage
D Turnip
Answer: C

## Question 6

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: D

## Question 7

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

A CHEL

B ZVXT
c VSUP

D MROV
Answer: B

## Question 8

Which letter will replace the question mark (?) in the following series?
Y, X, V, S, ?, J

A 0

B N

C Q
D P
Answer: A

Question 9
Select the option in which the given figure is embedded.


A


B


C


D


Answer: B

## Question 10

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 men are players.
All players are athletes.
Conclusions:
I. No athlete is a man.
II. All men are athletes.
III. Some athletes are men.

A Only conclusion I follows.
B Only conclusions II and III follow.

C Only conclusion II follows.

D Only conclusion III follows.
Answer: D

Question 11
If $\mathrm{DIG}=41$ and $G O A D=55$, then FACT $=$

A 45

B 61

C 53

D 63
Answer: B

## Question 12

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

A 8:80
B $6: 48$

C $4: 26$

D 10:120

## Question 13

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


A


B


C



Answer: B

## Question 14

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


How many students are dancers and cricket players but not boys?

A 7

B 12
C 4

D 16
Answer: A

## Question 15

Select the set of numbers that is similar to the following set.
$\{9,15,24\}$

A $\{21,33,55\}$
B $\{12,20,30\}$
C $\{6,10,16\}$
D $\{15,25,35\}$
Answer: C

Two positions of the same dice are given. Which number will be at the top if ' 3 ' is at the bottom?


A 4

B 6

C 5

D 1
Answer: A

Question 17
Which number will replace the question mark (?) in the following series?
3, 7, 13, 27, ?, 107, 213

A 63

B 53

C 58

D 49
Answer: B

Question 18
Which number will replace the question mark (' 7 ) in the following series?
1, 3, 4, 7, ?, 18, 29

A 10

B 13

C 15

D 11
Answer: D

Question 19
In a code language, CONCERT is written as CNEROCT. How will SMARTER be written in that language?

A RATESMR

B RATEMSR
C RATMESR

D RETRAMS
Answer: B

## Question 20

Select the option that is related to the third number in the same way as the second number is related to the first number. 12:145:8::

A 60
B 85

C 65

D 73
Answer: C

## Question 21

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

A $56: 11$
B 78:13
C $12: 3$

D $34: 7$
Answer: B

## Question 22

Select the option that is related to the third number in the same way as the second number is related to the first number. 4:8::25:

A 100

B 75
C 625

D 125
Answer: D

## Question 23

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.
Wish : Desire

A Run: Ride
B Drive: Speed

C Morning: Evening
D Cool: Cold
Answer: D

## Question 24

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

A DFIM

B FHKM
c MORV

D QSVZ
Answer: B

## Question 25

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

A $49: 94$

B $56: 67$

C 15:51

D 38:83
Answer: B

## Question 26

Starting from Anand's house, the school bus takes a right tum and covers 3 km . Then, it takes a left turn and covers 2 km . Finally, it takes a right turn again and covers 4 km to reach the school. On reaching the school, the bus faces southeast. In which direction was the bus facing when it left Anand's house?

A South-west

B South-east

C North-east

D North
Answer: C

## Question 27

Select the set of numbers that is similar to the following set.
$\{9,54,6\}$

A $\{3,15,6\}$
B $\{8,64,9\}$
C $\{7,74,12\}$

D $\{5,35,7\}$
Answer: D

Question 28
Which of the following interchanges of signs and numbers would make the given equation correct?
$12 \times 18 \div 3-6+4=5$

A $\div$ and $\times, 6$ and 3

B $\div$ and $\times, 4$ and 3

C $\div$ and,+ 3 and 4

D $\times$ and,+ 3 and 6
Answer: A

## Question 29

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



Answer: D

Question 30
Which number will replace the question mark (?) in the following series?
1, 2, 6, 12, ?, 72, 216

A 24

B 32
C 36
D 48
Answer: C

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

1. Treatment
2. Diagnosis
3. Doctor
4. Discharge
5. Bill

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

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

D $2,3,1,4,5$
Answer: A

Question 32
If MADE is coded as 12236 and BAD is coded as 123 , then how will DECK be coded as?

A 36212

B 34312

C 36201

D 44412
Answer: A

Question 33
Select the option in which the given figure is embedded. (Rotation is not allowed)


A


B


C


D


Answer: C

## Explanation:



## Question 34

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. Weigh : Balance

A Volume: Liquid
B Pour : Water

C Swim: River

D Detect:Radar
Answer: D

## Explanation:

Radar is used for "detecting" the position of moving objects like balance is used for "weighing" the object. In both the cases the second one is the device and first one is being measured.

## Question 35

In a code language, MONKEY is written as LPMLDZ. How will STROKE be written as in that language?

A TSSNLD

B RUQFJP
C RUQNLD

D RUQPJF
Answer: D

## Explanation:

Decoding the pattern of MONKEY ->LPMLDZ
$M$ is changed to $L$ which is $(n-1)$ th alphabet in the alphabetical order.
$O$ is changed to $P$ which is $(n+1)$ of the alphabetical order.
$N$ is changed to $M$ which is ( $n-1$ )th alphabet of alphabetical order.
$K$ is changed to $K$ which is $(n+1)$ th alphabet.
$E$ is changed to $D$ which is $(n-1)$ th alphabet.
and $Y$ is changed to $Z$ which is $(n+1)$ th alphabet.
so alternate $(n-1)-(n+1)$ pattern is being followed starting from $(n-1)$.
applying the same logic in STROKE
$S=>S-1=R$
$\mathrm{T}=>\mathrm{T}+1=\mathrm{U}$
$R=>R-1=Q$
$0=>0+1=P$
$\mathrm{K}=>\mathrm{K}-1=\mathrm{J}$
$\mathrm{E}=>\mathrm{E}+1=\mathrm{F}$
Hence RUQPJF is the right answer which is option D

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:
All teachers are researchers.
NO researcher is unemployed.
Conclusions:
I. Some unemployed are teachers.
II. No teacher is unemployed.
III. Some teachers are unemployed.

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

## Explanation:



Conclusion I : Some unemployed are teachers.
This can not be true as all teachers are researchers and no researcher is unemployed. So no teacher can be unemployed.
Conclusion 2 : No teacher is unemployed.
This statement is true and can clearly be seen from the Venn diagram.
Conclusion 3 :some teachers are unemployed.
This statement can not be true as it's contradictory to conclusion 2.
From the venn diagram it is clear that all teachers are researchers and hence neither a teacher nor a researcher can be unemployed.
Therefore, only conclusion 2 follows.

## Question 37

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

A XNSE

B XVTR

C XNTE

D YNSE
Answer: A

## Explanation:

Let us decode the relationship between DFIM and WURN
$D$ is the 4th alphabet from the start in the English alphabetical sequence and $W$ is the 4th alphabet from the end in the alphabetical order.

D - W
similarly,
F- 6th alphabet from the beginning,
and
U- 6th alphabet from the end.
DF-WU
I- 9th alphabet from the beginning
and
R- 9th alphabet from the end.
DFI-WUR
M-13th alphabet from the beginning
and
N -13th alphabet from the end
DFIM- WURN
Establishing the same relationship for CMHV
C- 3rd from beginning
$X$ - 3rd from the end.
C-X
M -13th from the beginning
N - 13th from the end.
CM-XN
H -8th from the beginning,
S-8th from the end
CMH-XNS
V -21st from the beginning
E - 21 st from the end .
CMHV-XNSE
Hence the right answer is option A

## Question 38

'Star' is related to 'Galaxy' in the same way as 'Flower' is related to '.. $\qquad$ $\therefore$.

A Jasmine

B Blossom

C Bouquet
D Petal
Answer: C

## Explanation:

Bouquet is made up of flowers in the same way as Galaxy is made up of stars

## Question 39

In the following diagram, the triangle represents 'army men', the circle represents 'athletes' and the rectangle represents 'strong men'. The numbers in difierent segments show the number of persons.


How many strong army men are not athletes?

A 13

B 19

C 11
D 10
Answer: C

Explanation:


Eliminating the circular part that represent athlete and taking the intersecting (common) area of rectangle and triangle representing strong men and army men respectively we get the highlighted area which is equal to 11 units.

Question 40
Identify the missing figure in the following series.


A


B


C


D


Answer: A

## Explanation:

The triangle is moving in clockwise direction so the missing figure must be facing downwards.
the orientation of cross and circle inside is changing alternatively.
for the first figure circle is at the $T$ head and cross is at it's tail, for the second figure cross is at the $T$ head and circle at the tail hence for the third figure circle will be at the $T$ head and cross at the $T$ tail.
therefore option A is the right answer.

In the following diagram, the triangle represents 'women', the circle represents 'graduates' and the rectangle represents 'teachers'. The numbers in difl'erent segments show the number of persons.


How many women graduates are not teachers?

A 9

B 12

C 17

D 5
Answer: C

Question 42
Select the number-pair in which the two numbers are related in the same way as are the two numbers of the given pair.
16:26

A 25:37

B 4:11
C $36: 56$

D 15:27
Answer: A

Explanation:
16:26
$(5 \times 3)+1:(5 \times 5)+1$
the similar pattern is followed by
$(6 \times 4)+1:(6 \times 6)+1$
25:37
which is the required answer
Question 43
Riya walked 90 m towards the north from her house, and then took a right turn and walked 60 m to reach the market. Then, she took a left turn and walked a few meters from the market to reach the post office, from where she took a left turn again and walked 160 m to reach the school. If the air distance between Riya's house and the school is 260 m , what is the air distance between the market and the post office?

B 120 m
C 150 m

D 100 m
Answer: C

Question 44
Identify the missing figure in the following series.


A


B


C


D


Answer: C

## Question 45

'Picture' is related to 'Coloured' in the same way as 'Letter' is related to '.....'.

A Bold

B Alphabet

C Word

D Language
Answer: A

## Question 46

Which two signs should be interchanged to make the following equation correct?
$10-15 \times 9+6 \div 3=9$

A - and :

B $\div$ and +

C + and -

D $\times$ and -
Answer: A

## Question 47

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

A EGJH

B CGLJ

C EEJH

D EEII
Answer: C

How many triangles are there in the following figure?


A 20

B 17

C 16

D 14
Answer: B

Question 49
Three of the following four words are alike in a certain way and one is difierent. Find the odd one out.

A Pan

B Jug

C Mug

D Cup
Answer: A

## Question 50

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

1. Cloud
2. Shelter
3. Monsoon
4. Rain
5. Flood
6. Relief

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

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

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

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

## General knowledge

Instructions
For the following questions answer them individually
Question 51
Which of the following is NOT a tributary of the Indus River?

A Zaskar

B Nubra

C Shyok

D Lohit
Answer: D

## Question 52

NASA's spacecraft has been studying Jupiter for almost two years since the year 2016.

A Muno

B Bruno

C Juno

D Luno
Answer: C

Question 53
There are three types of heterotrophs. Which of the following is NOT one of them?

A Consumers

B Carnivores

C Omnivores

D Herbivores
Answer: A

## Question 54

Which among the following is a dance form from the state of Arunachal Pradesh?

A Popir

B Bhavai

C Sattriya
D Purbi
Answer: A

## Question 55

Who was the first Vice President of independent India?

A Sarvepalli Radhakrishnan
B Kishan Kant

C Gopal Pathak
D KR Narayanan
Answer: A

## Question 56

Renowned writer Namita Gokhale was awarded $\qquad$ for her work 'Things to Leave Behind' under the 'Best Book of Fiction written by a Woman Author' category at the inaugural edition of Bhopal Literature and Art Festival.

A Sushila Devi Literature Award
B Jnanpith Award

C Sahitya Academy Award
D Yuva Puraskar Award
Answer: A

## Question 57

......... is the study of fungi.

A Geobiology

B Mycology
C Chronobiology
D Geronotology
Answer: B

## Question 58

Which of the following is NOT one of the great paradigms of biology?

A Mendel's laws of inheritance
B Archimedes' principle

C Establishment of comparative biochemistry
D Darwin's theory of evolution
Answer: B

## Question 59

Tripura Chief Minister $\qquad$ launched the Sustainable Catchment Forest Management (SCATFORM) project.

A Bhupesh Baghel

B Nitish Kumar

C Biplab Kumar Deb
D Pema Khandu
Answer: C

## Question 60

In January 2019, the Finance Ministry asked the Public Sector banks to gradually reduce the Govemment's equity to $\qquad$ per cent.

A 37

B 45
C 52

D 63
Answer: C

## Question 61

The Supreme Court has issued a notice to the Central Government on $\qquad$ questioning the centre's notification authorising 10 central agencies to intercept monitor and decrypt any computer system.

A IPL

B LPI

C PIL
D LIP
Answer: C

## Question 62

....... became the fourth Indian wicket-keeper to take five catches on Test debut.

A Dinesh Karthik

B Parthiv Patel
C Naman ojha
D Rishabh Pant

Answer: D

## Question 63

Union Minister of State for $\qquad$ Shri Shripad Yesso Naik, inaugurated the $2^{\text {nd }}$ World Integrated Medicine Forum 2019.

A Human Resource Development

B Chemicals and Fertilizers

C AYUSH

D Health
Answer: C

## Question 64

Nagaland became a part of the Union of India in the year 1963 by the $\qquad$ Amendment to the Constitution of India.

A $17^{t h}$

B $13^{t h}$

C $16^{t h}$

D $14^{\text {th }}$
Answer: B

## Question 65

......... is one of the most important technique for the separation of a mixture by passing it in solution or suspension through a medium in which the components move at different rates.

A Filtration

B Distillation

C Evaporation

D Chromatography
Answer: D

## Question 66

The Union Minister for Civil Aviation $\qquad$ released the Vision 2040 document in the Global Aviation Sunrrnit 2019.

A Suresh Prabhu

B Prakash Javadekar

C Piyush Goyal

D Nirmala Sitharaman
Answer: A

## Question 67

It is believed that Lord Shiva assumed the form of $\qquad$ and married Parvati at the site of the Meenakshi Temple in South India.

A Pashupati
B Harihara

C Nataraja
D Sundareshwarar
Answer: D

## Question 68

The Battle of $\qquad$ was fought in 326 BC by Alexander, the Great against King Porus.

A Hydaspes
B Tarain

C Panipat

D Plassey
Answer: A

## Question 69

The ......... dynasty which ruled North India from 1206 to 1290 was established by Qutbuddin Aibak.

A Lodi

B Tughlaq
C Khilji

D Slave
Answer: D

## Question 70

.......... is a New Year Celebration of Sikkimese Bhutia which falls in the 10th month of the Sikkimese Lunar calendar.

A Ashura

B Sonam Losoong

C Vesak

D Thai Pongal
Answer: B

## Question 71

Molecular mass of Sulphurous acid is:

A 96.04

B 98.07

C 87.06

D 82.07

## Answer: D

## Question 72

The Traffic Police Department of $\qquad$ is looking at a futuristic model to maintain trafiic flow and spread awareness about the traffic rules by introducing a robot named 'Roadeo'.

A Ahmedabad

B Mumbai

C Pune

D Delhi
Answer: C

## Question 73

India's ace sprinter and Asian Games gold-medalist, $\qquad$ was appointed as first ever youth ambassador of United Nations Children's Fund (UNICEF) India.

A Jisna Mathew

B Hima Das
C Mandeep Kaur

D Manjeet Kaur

## Answer: B

## Question 74

Andaman and Nicobar Islands is a group of $\qquad$ islands/islets.

A 275
B 450

C 780

D 572
Answer: D

An Indian team of scientists led by $\qquad$ of Physical Research Laboratory (PRL), have discovered a sub-Saturn or super-Neptune size planet around a Sun-like star.

A Professor Abhijit Chakraborty
B K Radha Krishnan

C Padmanaban

D Abhas Mitra
Answer: A

## Question 76

Post the Anglo-Mysore wars, whom did the East India Company appoint as the Governor of Bengal?

A Robert Clive

B Sir Charles Metcalfe
C Lord Hardinge
D Warren Hastings
Answer: A

## Question 77

Where is the Duncan Pass located?

A Goa

B Telangana
C Andhra Pradesh

D The Andaman and Nicobar Islands
Answer: D

## Question 78

'Angry Akku' by received The Hindu Young World-Goodbooks Award for Best Picture Book: Story in The Hindu Literary Prize 2018 which was awarded during The Hindu Lit for Life 2019.

A Rajiv Eipe
B Mamta Nainy

C Neelum Saran Gour
D Vinayak Varma
Answer: D

## Question 79

The Union Cabinet chaired by Prime Minister Narendra Modi has approved the Agriculture Export Policy, 2018, with an aim to increase farmer's income by . \% by 2022.

A $50 \%$

B 100\%

C $25 \%$

D $75 \%$
Answer: B

## Question 80

The Committee headed by Deputy Election Commissioner . $\qquad$ has submitted the report on revisiting the Section 126 of the Representation of the People Act.

A Chandra Bhushan Kumar
B Nasim Zaidi

C Umesh Sinha
D Achal Kumar Jyoti
Answer: C

## Question 81

The ....... was awarded the International Gandhi Peace Prize 2017 for its work in the field of education for rural and tribal children, rural empowerment and gender and social equality.

A Akshaya Patra Foundation
B Ekal Abhiyan Trust

C Vivekananda Kendra

D Sulabh International
Answer: B

## Question 82

Persea Americana is commonly known as ...

A Avocado

B Watermelon

C Orange
D Grapes

## Question 83

Kalhana penned the book named $\qquad$ in 12th century which is a metrical historical chronicle of the kings of Kashmir.

A Tarikh-i-Firuz Shahi

B Nuh Sipihr

C Rajatarangini

D Padmavat
Answer: C

## Question 84

The Delhi Higr Court has allowed the release of the movie ' 72 Hours - Martyr who never died', based on the life of the 1962 war hero Rifleman $\qquad$ who was posthumously awarded the Maha Vir Chakra for gallantry.

A Jaswant Singh Rawat
B Harbans Singh Virk
C Man Mohan Khanna
D Rajendra Singh
Answer: A

## Question 85

The Hindu Literary Prize 2018 for non-fiction was awarded to Activist $\qquad$ ,author of 'Interrogating my Chandal Life: An Autobiogaphy of a Dalit' during The Hindu Lit for Life 2019.

A Venita Coelho

B Mamta Nainy

C Manoranjan Byapari
D Vmayak Varma
Answer: C

## Question 86

The Tropic of Cancer passes through 8 Indian states. Which of the following is NOT one of them?

A Rajasthan
B Assam

C West Bengal
D Chhattisgarh
Answer: B

A Arun Jaitley
B Piyush Goyal

C Suresh Prabhu

D Nitin Gadkari
Answer: B

## Question 88

India celebrates Army Day on $\qquad$ to salute the valiant soldiers who sacrificed their lives to protect the country.

A February 15

B March 10

C January 15

D August 17
Answer: C

## Question 89

The 18th Asian Games were held in the cities of $\qquad$ and $\qquad$ in Indonesia from August 18 to September 2, 2018.

A Medan and Makassar
B Bandung and Surbaya

C Malang and Padang
D Jakarta and Palembang
Answer: D

## Question 90

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

A Odisha

B Rajasthan
C Chhattisgarh

D Bihar
Answer: C

A Bijan Mukherjee
B A R Sarkar

C Harilal Kania

D Y V Chandrachud
Answer: C

## Question 92

Shaktikanta Das took over as the $\qquad$ Governor of Reserve Bank of India after the resignation of Urjit Patel.

A $26^{t h}$

B $27^{t h}$

C $24^{t h}$
D $25^{t h}$
Answer: D

## Question 93

The High Court of Kerala had disqualified an independent MLA $\qquad$ from the Koduvally Assembly constituency for his defamatory campaign against the rival candidate during the 2016 Assembly polls.

A Kamal Nath

B Himanta Biswa Sarma

C Karat Razack

D Ahmed Patel
Answer: C

## Question 94

India-Myanmar bilateral army exercise, IMBEX 2018-19, has begun at Military Station which houses the headquarters of the Western Command.

A Tandur

B Chandi mandir

C Pasan

D Ramth
Answer: B

Vesak commerates the birth of $\qquad$

A Christ

B Mahavir

C Judas

D Buddha
Answer: D

## Question 96

Indian athlete ...... won gold medal in women's Heptathlon Athletics event at 18th edition of Asian Games held in Jakarta-Palembang in Indonesia.

A Anju Bobby
B Swapna Barman

C Anjali Bhagwat

D Sakshi Malik
Answer: B

## Question 97

Which amongst the following is NOT one of the four main factors of production?

A Land

B Labour

C Expenditure

D Entrepreneurship
Answer: C

## Question 98

....... is the first institute in the country to launch a full-fledged bachelor's programme in Artificial Intelligence (AI) technology.

A IIT Hyderabad

B IIT Kanpur

C IIT Delhi

D IIT Bombay
Answer: A

## Question 99

By whom was the play 'Caesar and Cleopatra' written?

A Joy Adamson

B Thomas Powers

C George Bernard Shaw
D Ernest Hemingway
Answer: C

## Question 100

Eminent economist and columnist $\qquad$ has resigned as part-time member of Economic Advisory Council to the Prime Minister (EAC-PM) in December 2013.

A surjit Bhalla

B Arvind Subramanian

C Shivshankar Menon

D Urijit Patel
Answer: A

## Quant

Instructions
For the following questions answer them individually
Question 101
In the given pie-chart. the amount spend on education is what percent of the savings?
Degree of amount incurred in different Expenditure(Total ₹ 43,200 )


A 80\%

B 60\%
C $70 \%$

D 75\%
Answer: D

## Question 102

Two numbers are in the ratio $5: 11$. If their HCF is 24 , then the sum of two these numbers is:

A 384

B 408

C 120

D 264
Answer: A

## Question 103

One side of a rhombus is 26 cm and one of the diagonal is 48 cm . What is the area of the rhombus?

A $624 \mathrm{~cm}^{2}$

B $580 \mathrm{~cm}^{2}$

C $520 \mathrm{~cm}^{2}$

D $480 \mathrm{~cm}^{2}$
Answer: D

## Question 104

If the seven digit number $56 \times 34 y 4$ is divisible by 72 , then what is the least value of $(x+y)$ ?

A 8

B 12

C 5

D 14
Answer: C

## Question 105

$A B C D$ is a cyclic quadrilateral such that $A B$ is the diameter of the circle circumscribing it and $\angle A D C=155^{\circ}$. then what is the measure of $\angle B A C$ ?

A $35^{\circ}$

B $55^{\circ}$

C $65^{\circ}$
D $45^{\circ}$
Answer: C

In a class of 70 students, $40 \%$ are girls and remaining are boys. The average marks of the boys are 63 and that of the girls are 70 . What is the average marks of the whole class?

A 65.4

B 65.8

C 65.2

D 64.8
Answer: B

Question 107
The sides of a triangle are $16 \mathrm{~cm}, 30 \mathrm{~cm}$ and 34 cm respectively. At each vertices, circles of radius 7 cm are drawn. What is the area of the triangle. excluding the portion covered by the sectors of the triangle? $\left(\pi=\begin{array}{c}22 \\ 7\end{array}\right)$

A $172 \mathrm{~cm}^{2}$
B $163 \mathrm{~cm}^{2}$
C $196 \mathrm{~cm}^{2}$

D $86 \mathrm{~cm}^{2}$
Answer: B

Question 108
If $a^{3}-b^{3}=1603$ and $(a-b)=7$, then $(a+b)^{2}-a b$ is equal to:

A 458

B 338

C 229

D 648
Answer: C

## Question 109

If a train runs with the speed of $36 \mathrm{~km} / \mathrm{h}$, it reaches its destination 15 minutes late. However, if its speed is $45 \mathrm{~km} / \mathrm{h}$. it is late by only 4 minutes. The correct time to cover its journey in minutes is:

A 22

B 27
C 25

D 40
Answer: D

From a point $P$ outside the circle with centre $O$. two tangents $P A$ and $P B$ are drawn to meet the circle at $A$ and $B$ respectively. If $\angle A P B=70^{\circ}$. then $\angle O A B$ is equal to:

A $35^{\circ}$

B $65^{\circ}$

C $45^{\circ}$

D $55^{\circ}$
Answer: A

Question 111
The price sugar has increased by $18 \%$, By what percentage can a person decrease the consumption so that, there is no change in the expenditure? (correct to one decimal place)

A $15.9 \%$

B 15.7\%
C $15.5 \%$

D $15.3 \%$
Answer: D

Question 112
18 persons working 8 hours a day can complete 3 units of works in 10 days. How many persons are required to complete 5 units of that work in 16 days working 6 hours a day?

A 25

B 15
C 20

D 9
Answer: A

In the given bar graph, what is the average number of females in all five organisations?
Number of Male and Female in different Organization


A 245

B 235
C 230

D 225
Answer: C

## Question 114

A boat can go 20 km downstream and 30 km upstream in 2 hours 20 minutes. Also, it can go 10 km downstream and 8 km upstream in 49 minutes. What is the speed of boat downstream in $\mathrm{km} / \mathrm{h}$ ?

A 18
B 20

C 16

D 24
Answer: D

Question 115
The value of $\sin ^{2} 30^{\circ} \cdot \cos ^{2} 45^{\circ}+2 \tan ^{2} 30^{\circ}-\sec ^{2} 60^{\circ}$ is equal to:

A
-13

77
$-\quad 24$

C $\begin{array}{r}25 \\ -12\end{array}$

D $\begin{array}{r}1 \\ -12\end{array}$
Answer: B

## Question 116

In the given bar graph, what is the ratio of the total males and females working in all organisations?


A $49: 46$

B 35:46

C $46: 40$

D $46: 35$
Answer: A

Question 117
The average of 22 numbers is 52 . The average of the first 8 numbers is 48 and the average of next 11 numbers is 54 . The $20^{\text {th }}$ number is 7 less than the $21^{\text {st }}$ number and $21^{\text {st }}$ number is 4 more than $22^{n d}$ number. What is the average of the $20^{t h}$ and $22^{n d}$ numbers?

A 52

B 52.5

C 53

D 53.5
Answer: D

## Question 118

From the top of 75 m high tower, the angle of depression of two points $P$ and $Q$ on opposite side of the base of the tower on level ground is $\theta$ and $\phi$, such that $\tan \theta=\stackrel{3}{4}$ and $\tan \phi=\stackrel{5}{8}$. What is the distance between the points $\mathbf{P}$ and $\mathbf{Q}$ ?

A 190 m

B 200 m

C 180 m

D 220 m
Answer: D

Question 119
The radius of a cylinder is increased by $150 \%$ and its height is increased by $50 \%$. What is the percentage increase in its volume?

A $375 \%$

B 625.5\%

C $775.75 \%$

D 837.5\%

## Answer: D

Question 120
A. B and C started a business by investing $₹ 27,500$. $₹ 32,500$ and $₹ 37,500$ respectively. A is a working partner and gets $20 \%$ of profit as working allowance and the remaining is distributed in proportion of their investments. If the money received by C is ₹ 13,500 , What is total profit?

A ₹ 35,100

B ₹ 38,425

C ₹ 42.750
D ₹ 43,875
Answer: D

Question 121
In the given histogram, what percentage of students got marks less than 45 ? (Correct to one decimal place)


A $39.4 \%$

B 39.1\%

C $39.6 \%$

D $38.8 \%$
Answer: B

Question 122
The Square root of which of the following is a rational number?

B 2758.28
C 72568.4

D 62504.9
Answer: A

## Question 123

What is the sum of the digits of the least number, which when divided by 15.15 and 27 leaves the same remainder 9 in each case and is also completely divisible by 11 ?

A 20
B 17

C 18

D 19
Answer: C

## Question 124

$6.75 \times 6.75 \times 6.75-4.25 \times 4.25 \times 4.25$
$67.5 \times 67.5+42.5 \times 42.5+67.5 \times 42.5$ is equal to:

A 2.5
B 0.25

C 0.0025

D 0.025
Answer: D

## Question 125

A shopkeeper marks an amide at a price such that afier giving a discount of $25 \%$. the gains $\mathrm{x} \%$. If the cost price and the marked price of the article are ₹ 460 and $₹ 736$ respectively. what is the value of x ?

A 20\%
B $18 \%$

C $24 \%$

D 16\%
Answer: A

## Question 126

Let $\triangle A B C \sim \triangle R P Q$ and $\underset{\operatorname{ar}(\triangle A B C)}{\operatorname{ar}(\triangle P Q R)}=\stackrel{1}{4}$. If $P Q=4 \mathrm{~cm}, Q R=6 \mathrm{~cm}$ and $P R=7 \mathrm{~cm}$, then $A C$ is equal to.

A 2 cm
B 4 cm

C 3 cm

D 3.5 cm
Answer: C

Question 127

Degree of amount incurred in different Expenditure(Total ₹43,200)


In the given pie-chart, total expenditure together on rent and education is what percent less than total expenditure of food and miscellaneous items?

A $26 \%$

B 30\%
C $\quad 200 \%$

D $\quad{ }^{40}$
Answer: D

## Question 128

$5{ }_{5}^{1}-\left[3{ }_{2}^{1}-\left\{\begin{array}{l}5 \\ 6\end{array}-\left(\begin{array}{rr}3 \\ 5 & +10 \\ 10 & -15\end{array}\right)\right\}\right]$ is equal to:

A $\quad \begin{aligned} & 21 \\ & 10\end{aligned}$

B $\quad$| 7 |
| :--- |

C $\quad$| 7 |
| :--- |

D $\quad \begin{array}{r}8 \\ 3\end{array}$
Answer: A

The efficiencies of $A, B$ and $C$ are in the ratio $2: 5: 7$ working together, they can complete a work in 10 days. In how many days will. A alone be able to complete $30 \%$ of that work?

A 20
B 28

C 30
D 21
Answer: D

## Question 130

In an examination, $53 \%$ of the candidates failed in science and $48 \%$ failed in mathematics. If $40 \%$ failed in both subjects, what percentage passed in both subjects?

A $51 \%$

B $39 \%$

C $49 \%$

D $43 \%$
Answer: B

## Question 131

TWO pipes $A$ and $B$ can fill an empty tank in 10 hours and 16 hours respectively. They are opened alternately for 1 hour each, starting with pipe A first. In how many hours, the empty tank will be filled?

A $12{ }_{3}^{1}$
B $12{ }_{8}^{1}$
C $12{ }_{4}^{1}$

D $12{ }_{6}^{1}$
Answer: C

## Question 132

The successive discounts of $20 \%, 10 \%$ and $8 \%$ is equivalent to a single discount of:

A 66.24\%

B $32.84 \%$

C $38 \%$

D 33.76\%
Answer: D

## Question 133

If $\sin (A+B)=\begin{gathered}\sqrt{3} \\ 2\end{gathered}$ and $\tan (A-B)=\sqrt{\sqrt{3}}$, then $(2 A+3 B)$ is equal to:

A $120^{\circ}$

B $135^{\circ}$

C $130^{\circ}$
D $125^{\circ}$
Answer: B

## Question 134

A sum of ₹ $\mathbf{1 2 , 0 0 0}$ is invested for 15 months at $10 \%$ per annum compounded half yearly. What is the percentage gain, at the end of 15 months. correct to one decimal place?

A $13.0 \%$

B $13.1 \%$

C $12.8 \%$

D $12.9 \%$
Answer: A

## Question 135

What is the ratio of mean proportional between 1.8 and 3.2 and the third proportional of 5 and 3 ?

A $3: 5$

B $4: 3$

C $3: 4$

D 5:3
Answer: B

Question 136
In $\triangle A B C, \angle A=40^{\circ}$. If the bisectors ofthe $\angle B$ and $\angle C$, meet at a point $O$. then $\angle B O C$ is equal to:

A $130^{\circ}$

B $90^{\circ}$

C $70^{\circ}$

D $110^{\circ}$
Answer: D

Question 137
Pipes A and B can fill a tank in 12 hours and 16 hours respectively and pipe C can empty the full tank in 24 hours. All three pipes are opened together, but after 4 hours pipe A is closed. In how many hours from the beginning the tank be filled?

A 24
B 28

C 30

Answer: D

## Question 138

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

A $850 \mathrm{~cm}^{2}$
B $825 \mathrm{~cm}^{2}$

C $1200 \mathrm{~cm}^{2}$

D $800 \mathrm{~cm}^{2}$
Answer: A

Question 139
A shopkeeper sold two articles for ₹ 9639 each. On one, he gained $19 \%$ and on the other, he lost $19 \%$. What is the overall percentage gain or loss?

A $3.81 \%$ loss
B $3.61 \%$ gain
C $3.81 \%$ gain
D $3.61 \%$ loss
Answer: D

Question 140
In the given histogram, in which class interval, the median marks lies?


A $30-45$
B $\quad 45-60$
C $\quad 60-75$

D $\quad 15-30$
Answer: B

## Question 141

If $(x+4)^{3}+(2 x+1)^{3}+(2 x+5)^{3}=(3 x+12)(2 x+1)(2 x+5)$, then what is the value of $x$ ?

A -3

B -2

C 2

D 3
Answer: B

Question 142
The value of $3{ }_{6}^{5}+\left[3{ }_{3}^{2}-\left\{{ }_{4}^{15}\left(5{ }_{5}^{4} \div 14{ }_{2}^{1}\right)\right\}\right]$ is equal to:

A $\quad 37$

B $\begin{array}{r}35 \\ 6\end{array}$

C 6
D $\quad \begin{array}{r}19 \\ 3\end{array}$
Answer: C

Question 143
Number of Male and Female in different Organization


In the given bar graph, in which organisation, the percentage difference between the males and females is maximum, by considering total persons in that organisation as base?

A D

B E

C B

D C
Answer: A

## Question 144

The angle of elevation of top of a tower from a point $\mathbf{P}$, on the ground is $\theta$ such that $\tan \theta={ }_{5}^{12}$. If distance of the point $\mathbf{P}$, from the base of the tower is 75 m , what is the height of the tower?

A 160 m

B 200 m

C 190 m

D 180 m

## Answer: D

Question 145
If the income of $A$ is $40 \%$ more than the income of $B$, then by what percentage is $B$ 's income less than that income of $A$ ?

A $\quad \begin{array}{r}230 \\ 7\end{array}$

B $56 \%$

C $25 \%$
D $\quad \begin{array}{r}200\end{array} \%$
Answer: D

Question 146
If $x+\stackrel{1}{x}=8$,then $x^{2}+\stackrel{1}{x^{2}}$ is equalto:

A 62

B 68

C 64

D 66
Answer: A

## Question 147

A sum of ₹ 15,600 is invested partly at $7 \%$ per annum and the remaining at $9 \%$ per annum simple interest. If the total interest at the end of 3 years is ₹ 3,738 . how much money was invested at $7 \%$ per annum?

A ₹ 7,800

B ₹ 7,900

C ₹ 7,600
D ₹ 7,700
Answer: B


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

A 51.2

B 53.5

C 52.7

D 50.6
Answer: D

## Question 149

Degree of amount incurred in different Expenditure(Total ₹43,200)


In the given pie-chart, what is the total expenditure on rent?

A ₹ 8,400
B ₹ 8,600
C ₹ 8,800
D ₹ 8,900
Answer: A

## Question 150

A sphere of radius 7 cm is melted and recast into small spheres of radius 2 cm each. How many such spheres can be made?

A 40
B 42
C 41

## English

Instructions
For the following questions answer them individually
Question 151
Select the wrongly spelt word.

A devilish

B device

C deviation
D deveous
Answer: D

Question 152
Select the wrongly spelt word.

A evaporation

B establish

C essential
D evaluetion
Answer: D

## Question 153

Select the most appropriate words to fill in the blanks.
I expect to return $\qquad$ Mumbai $\qquad$ March 15.

A from; on

B to; at

C from; in
D at: in
Answer: A

## Question 154

Select the most appropriate word to fill in the blank.
After three months of practice, I $\qquad$ now swim quite fast.

A cannot
B should
C can

D could
Answer: C

## Question 155

Select the antonym of the given word.
STINGY

A kind

B generous
C mean

D miserly
Answer: B

## Question 156

In the sentence identify the segment which contains the grammatical error.
Either Avika or Nikunj are going to win the prize in the handwriting competition.

A Either Avika

B or Nikunj
C in the

D are going to
Answer: D

Question 157
Select the most appropriate meaning of the given idiom.
get out of hand

A to act irresponsibly
B to become uncontrollable
C to be indecisive

D to lose courage
Answer: B

## Question 158

In the sentence identify the segment which contains the grammatical error.
Neither I nor my sisters was interested in learning music.

A nor my sisters

B in learning music.

C was interested

D Neither I
Answer: C

## Instructions

Read the following passage and answer the questions given after it.
Passage:
The much-awaited expansion of Delhi's Indira Gandhi hrternational Airport is expected to begin by March-end as the airport operator has received three bids for the R 9.000-crore project. two officials familiar with the matter said.

Two bids are fi'om foreign companies while one is from an Indian firm. The airport operator. the GMR Group-led Delhi International Airport Ltd (DIAL). is expected to finalise the bidder this week. After the armouncement. the successful bidder is expected to take around two months to mobilise the workforce and begin expansion work.

The bid document says the selected company has to complete work in 42 months. All the three bidders are reported to have quoted 39 months. the sources said.

The expansion is aimed to meet the rapid traffic growth that has already made IGI Asia's seventh busiest airport. The selected company will work on the expansion of Terminal 1 and Terminal 3 and the construction of a new runway and taxiways. Roads leading to the airport will be widened and new approach roads will be built. The operator expects the expansion. which will start with Terminal 1 , to be completed by 2021 - taking the overall handling capacity of the airport to 85 million passengers per year from the current 70 million. It will be followed by Phase 2 of the expansion, which includes construction of another brand new terminal.

Data released last year by Airports Council International showed that the passenger traffic at the Delhi Airport grew 14.1\% year on year to 63.45 million in 2017. It was the first time it breached the 60 -million passenger mark. In 2018, it was just below 70 -million mark. The new air traffic control (ATC) tower. which will open in 2019. and the fourth runway. to be laturclred in 2021. would help it reduce air congestion and handle more flights.
"Terminal 1 handles domestic traffic for low-cost carriers. These have registered a phenomenal growth in the last few years, calling for an expansion of the ternrirral. Delhi Metro rurder its Phase 3 programme is connecting this terminal to catchment areas of central and south Delhi. Since T1 is operating beyond its capacity, the expansion will begin from there and cover the airside. terminal building and city side." said a DIAL official.

According to the Master Plan, T1 's capacity will increase fi'om 20 million to 40 million and that of Terminal 3 hour 34 million to 45 million.

Inter-terminal connectivity through the Airport Metro between T1 and T3 is also part of the expansion plan.
DIAL has appointed AECOM, a design and development consultant for infrastructure projects, to complete the preliminary design for the expansion work.

## Question 159

From the reading of the paragraph it can be inferred that it is:

A a news item
B a survey report

C an airport novel
D a promotional article
Answer: A

The expansion of the airport will begin from:

A Construction of a new terminal to handle the increasing load.
B Terminal 3 which handles international traffic.

C Construction of a new runway and taxiways.

D Terminal 1 which handles fast growing domestic traffic.
Answer: D

Question 161
In 2018, the number of passengers that the Delhi Airport handled was:

A 63.45 million

B 40 million

C just below 70 million

D 45 million
Answer: C

## Question 162

Which of the following measures will help the airport reduce air congestion and handle more flights for the time being?

A building Inter-terminal connectivity between T1 and T3
B construction of air control tower and a new runway
C construction of taxiways and widening of approach roads

D construction of a brand new terminal
Answer: B

## Question 163

Which agency has been appointed to prepare the design for the expansron of the Delhr airport?

A Airports Council International

B G M R group
C AECOM

D DIAL
Answer: C

For the following questions answer them individually

## Question 164

Select the antonym of the given word.
IMPECCABLE

A faultless

B unsullied

C imperfect
D methodical
Answer: C

## Question 165

Select the most appropriate meaning of the given idiom.
to drive someone up the wall

A to help someone in difficulty
B to keep at a distance

C to irritate someone very much
D to frighten someone
Answer: C

## Question 166

Select the synonym of the given word.
VELOCITY

A flight
B race

C speed
D hurry
Answer: C

## Question 167

Select the most appropriate option to substitute the underlined segment in the given sentence. If there is no need to substitute it, Select No improvement.
People arrive from all parts of the country and had walked miles to take a dip at the confluence of the Rivers Ganga and Yamuna.

A are walking miles to take a dip

B walk for miles to take a dip
C had walked miles taking a dip

D NO improvement
Answer: B

## Question 168

Select the wrongly spelt word.

A releive

B recruit

C receipt

D realm
Answer: A

## 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 improvement.
He has not taken any coaching in the game but he plays good than many professional players.

A He is playing good than
B he plays the best than
C he plays better than
D No improvement
Answer: C

## Question 170

Select the antonym of the given word.
AMIABLE

A comfortable

B friendly
C hostile
D cordial
Answer: C

## Question 171

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.
Not only she objected his proposal but also condemned it in strong terms.

A Not only did she object

B Not only did she objected
C Not only she had objected

D No improvement
Answer: A

## Question 172

Select the wrongly spelt word.

A violin

B visionary

C vecious

D voyage
Answer: C

## Question 173

Select the synonym of the given word.
ACCURATE

A precise

B truthful

C condensed

D pacify
Answer: A

## Question 174

Select the most appropriate word to fill in the blank.
There was a lot of rubbish on the floor so I asked Sangeeta to sweep ....... away.

A them
B this

C it

D its
Answer: C

## Question 175

Select the antonym of the given word. COHERENT

A constant
B illegible
C consistent
D illogical

Question 176
Select the antonym of the given word. WEARY

A quick

B alert

C tired

D refreshed
Answer: D

## Question 177

Select the most appropriate word for the given group of words. a large bound bundle of paper, hay or cotton

A barrel

B bale

C gale

D cache
Answer: B

## Question 178

Select the most appropriate word to fill in the blank.
I felt something hard $\qquad$ my cheek.

A hit
B to hitting
C to be hitting
D to hit
Answer: A

## Question 179

Select the wrongly spelt word.

A competition
B explaination
C acquisition

Answer: B

## Question 180

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

The Kumbh Mela has been held at Allahabad, since centuries now because in the past two decades it has grown into a mega event.

A for centuries now but in the past
B NO improvement

C since centuries now but in the past
D for centuries now moreover in the past
Answer: A

## Question 181

In the sentence identify the segment which contains the grammatical error.
She is always frnding fault with the food I cook.

A I cook.

B fault with

C the food

D is always finding
Answer: D

## Question 182

In the sentence identify the segment which contains the grammatical error.
This test comprises of grammar, vocabulary and reading comprehension.

A grammar, vocabulary

B This test

C and reading comprehension
D comprises of
Answer: D

## Question 183

Select the most appropriate word for the given group of words. instrument used for coding and decoding messages

A chronorneter

B cryptograph

C cardiograph
D crescograph
Answer: B

## Question 184

Select the most appropriate meaning of the given idiom.
to give the slip

A to keep low

B to escape

C to hit someone

D to hide
Answer: B

## Question 185

Select the synonym of the given word.
IMMERSE

A drown

B bathe

C shower

D submerge
Answer: D

Question 186
Select the synonym of the given word.
AWKWARD

A skillful

B clumsy

C pleasant

D graceful
Answer: B

Question 187
Select the most appropriate word for the given group of words. the base frame of a car or other wheeled vehicle

A fuselage

B bonnet
c chassis
D cockpit
Answer: C

## Question 188

Select the synonym of the given word.
RADICAL

A trivial

B absolute

C minor

D moderate
Answer: B

Question 189
Select the most appropriate word to fill in the blank.
The offer is good. You will regret $\qquad$ you decline it.

A unless

B whether

C if

D therefore
Answer: C

Question 190
Select the most appropriate meaning of the given idiom.
the whole nine yards

A an act of kindness
B the entirety of something

C an essential part
D an enjoyable situation
Answer: B

## Question 191

Select the most appropriate word for the given group of words.
things or people of the same kind

B homogeneous
C fellows

D colleagues
Answer: B

## Question 192

In the sentence identify the segment which contains the grammatical error.
The village. with all its houses. were flooded by the river.

A by the river
B were flooded
C its houses

D with all
Answer: B

Question 193
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.

It is difficult to distinguish in the two brothers.

A No improvement
B in both the two brothers.

C among the two brothers.
D between the two brothers.
Answer: D

## Question 194

Select the most appropriate meanrng of the given idiom.
hit the nail on the head

A to make the precisely correct point
B to hit someone on the head
C to assess the situation immediately

D to handle a difi'rcult situation
Answer: A

## Question 195

Select the most appropriate word for the given group of words.
a small group of people having control of a country

A oligarchy
B plutocracy
C aristocracy
D theocracy
Answer: A

## 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:
Wild monkeys are a problem for farmers in many areas in Japan. $\qquad$ (1) often come out of the woods to $\qquad$ (2)the tasty vegetables and fruit on farms. $\qquad$ (3)year. they cause heavy damage to crops. $\qquad$ (4) the farmers are fighting back. In 2005. a small village in Nagano (5) a program to protect crops with the help of dogs. They are known as monkey dogs. and they are trained to scare monkeys away.

Question 196

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

A It
B They
C Those

D them
Answer: B

Question 197

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

A get

B cut
C eat
D waste
Answer: C

## Question 198

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

A All

B Whole
C This
D Every

Answer: D

## Question 199

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

A Because

B However

C Moreover

D Though
Answer: B

## Question 200

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

A continued

B started

C embarked

D instigated
Answer: B

