

SSC CPO 9th Dec 2019 Shift-2

General Intelligence and Reasoning

Instructions

For the following questions answer them individually

Question 1

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

SPORTS : 214 :: SOCIAL : ?

- A 118
- B 116
- C 60
- D 120

Answer: A

Question 2

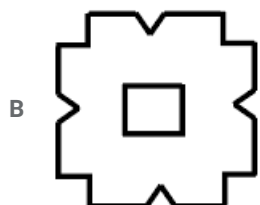
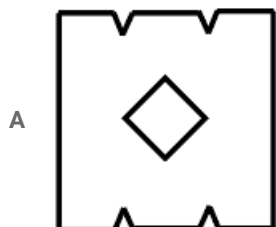
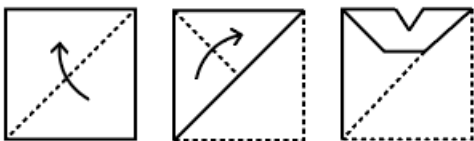
In a certain code language, 'ULTERIOR' is written as '33259969'. How will 'NAVIGATION' be written as in that language?

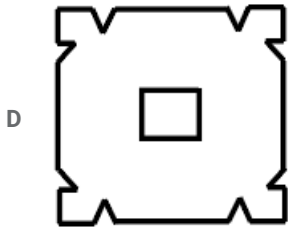
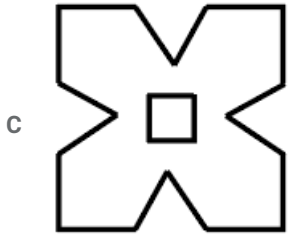
- B 5149722965
- A 1412297215
- C 1419712915
- D 5149712965

Answer: D

Question 3

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





Answer: C

Question 4

Four pairs of numbers have been given, out of which three are alike in some manner, while one is different. Choose out the odd one.

A 19,39

B 25,53

C 68,137

D 37,75

Answer: B

Question 5

Select the number that can replace the question mark (?) in the following series

1, 1, 2, 3, 7, 22, ?

A 152

B 155

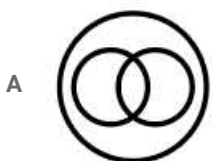
C 157

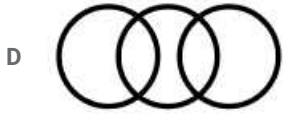
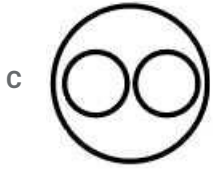
D 156

Answer: B

Question 6

Select the venn diagram that best represents the relationship between the following classes
Cow, Wild animals, Fox





Answer: B

Question 7

If A indicates >; B indicates <; C indicates =; D indicates +; E indicates -; F indicates ×; G indicates /; then which of the following options is true?

- A (27G3)C(75G5)C(6F2)
- B (35E15)C(5F5)A(20G4)
- C (5D6)A(6D12)A(13D6)
- D (5D6)A(4D3)A(3D3)

Answer: D

Question 8

Two statements are given followed by four conclusions I, II, III and IV. You have to consider these statements to be true, even if they seem at variance from commonly known facts. Decide which of the given conclusions logically follow/s from the given statement.

Statements:

1. All papers are stationery.
2. Some papers are books.

Conclusions:

- I. Some stationery are papers.
- II. No stationery is paper.
- III. No book is stationery.
- IV. Some books are papers

- A Only conclusions I, II and IV follow
- B Only conclusions I and II follow.
- C Only conclusions II and III follow.
- D Only conclusions I and IV follow

Answer: D

Question 9

Four letter-cluster have been given out of which three are alike in some manner, while one is different. Choose the odd one.

- A dEefFF

B mnNoOO

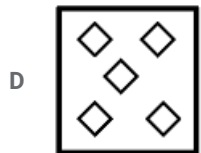
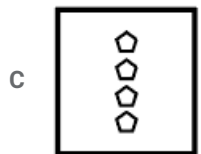
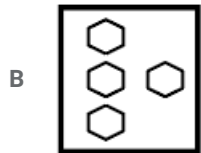
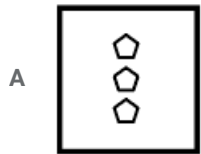
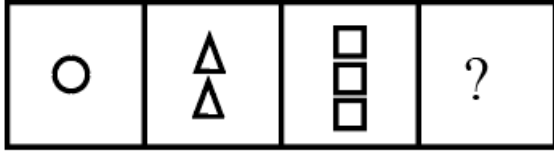
C uvVwWW

D pqQrRR

Answer: A

Question 10

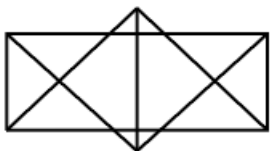
Select the figure that will come next in the following figure series.



Answer: C

Question 11

How many triangles are there in the following figure?



A 16

B 24

C 26

D 25

Answer: B

Question 12

In a certain code language, 'PAYCHECK' is written as 'YHQZFXMV' and 'TEACH' is written as 'NXHZF'. How will 'YACHT' be written as in that language?

- A QHZFN
- B HQZFV
- C QXZFN
- D YHZF

Answer: A

Question 13

Study the given pattern carefully and select the number that can replace the question mark (?) in it.

3	18	7
28	71	35
48	65	?
60	108	98

- A 23
- B 72
- C 14
- D 21

Answer: D

Question 14

Select the option in which the numbers share the same relationship as that shared by the given pair of numbers.
63 : 72

- A 112:144
- B 188:216
- C 161:284
- D 152:133

Answer: C

Question 15

Which of the given options would be a logical sequence of the following measurement units?

1. Furlong
2. Mile
3. Inch
4. Yard
5. Foot

A 2, 1, 4, 3, 5

B 1, 4, 2, 5, 3

C 2, 1, 4, 5, 3

D 1, 5, 3, 2, 4

Answer: C

Question 16

Four words have been given out of which three are alike in some manner, while one is different. Choose the odd one.

A Steel

B Tin

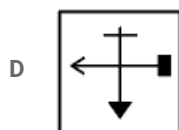
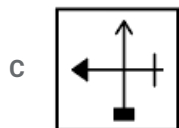
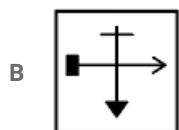
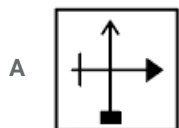
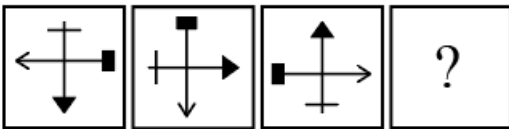
C Aluminium

D Zinc

Answer: A

Question 17

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



Answer: C

Question 18

Select the number that can replace the question mark (?) in the following series.

14, 17, 23, 32, 44, 59, ?

A 78

B 77

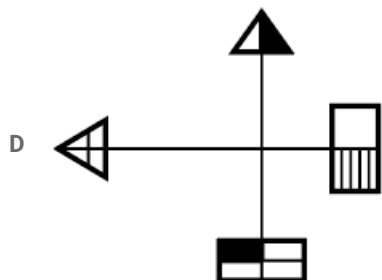
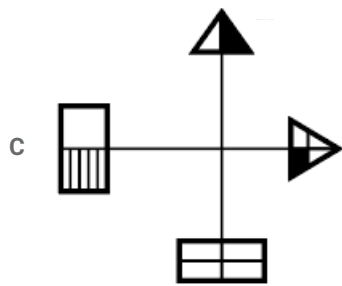
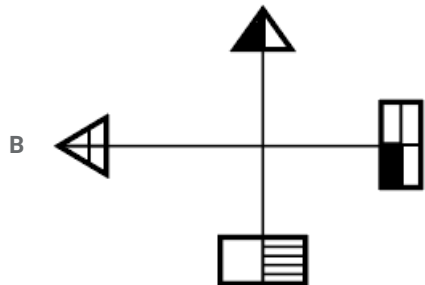
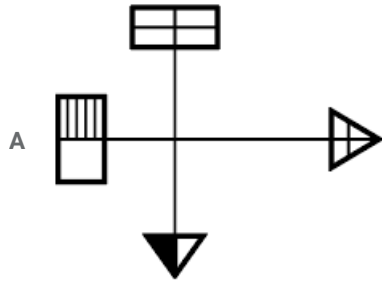
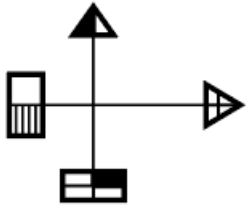
C 74

D 67

Answer: B

Question 19

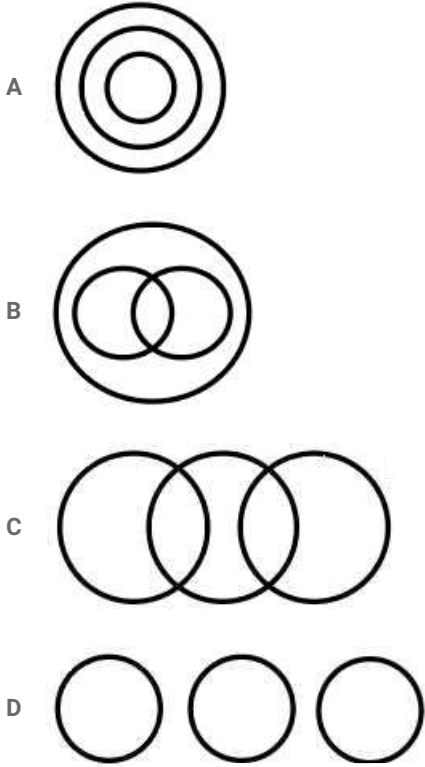
Select the option that most closely resembles the mirror image of the given figure, when the mirror is placed to right side of the figure.



Answer: D

Question 20

Select the Venn diagram that best represents the relationship between the following classes
Days, Hours, Weeks



Answer: A,

Question 21

Two statements are given followed by two conclusions I and II. You have to consider these statements to be true, even if they seem at variance from commonly known facts. Decide which of the given conclusions logically follow/s from the given statement.

Statements:

1. All petunias are flowers.
2. No flower is black.

Conclusions:

- I. Some petunias are black.
- II. No petunia is black.

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

Answer: B

Question 22

Among the following words, which one will come fifth if they are arranged as per their order in an English dictionary?

1. Wink
2. Whip
3. Weary
4. Wing
5. Weigh
6. Weather

- A Wink
- B Weather
- C Whip
- D Wing

Answer: D

Question 23

In a certain code language, 'KITE' is written as '9' and 'MAGIC' is written as '11'. How will 'FELICITATION' be written as in that language?

- A 25
- B 22
- C 24
- D 12

Answer: A

Question 24

In a certain code language, 'dee duc tic' is written as 'roses are red', 'bil doe' is written as 'yellow carnations' and 'tic dur doe' is written as 'carnations are pink'. What is the code for 'pink' in that language?

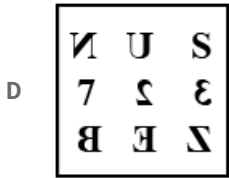
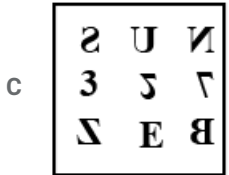
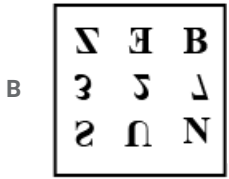
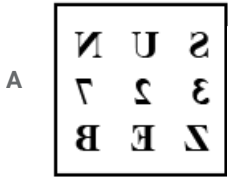
- A doe
- B dee
- C tic
- D dur

Answer: D

Question 25

Select the option that most closely resembles the mirror image of the given figure, when mirror is placed to right side of the figure.

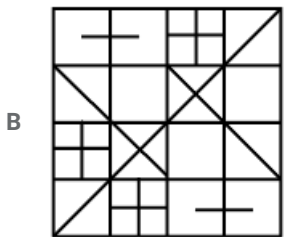
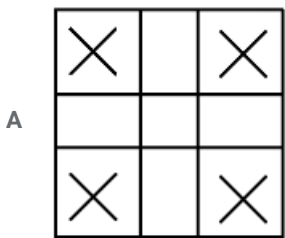
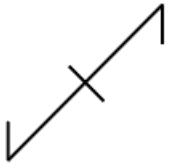
S	U	N
3	2	7
Z	E	B

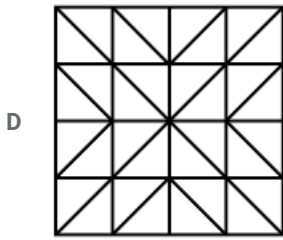
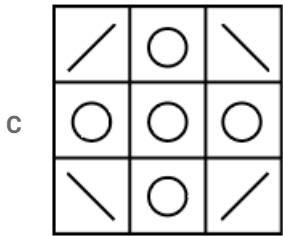


Answer: A

Question 26

Select the option in which the given figure is embedded. (Rotation is NOT allowed)





Answer: D

Question 27

If '×' stands for '+', '+' stands for '÷', '-' stands for '×' and '÷' stands for '-', then find the value of the given equation.
 $76 \div 5 - 6 + 3 \times 4 = ?$

- A 62
- B 46
- C 65
- D 70

Answer: D

Question 28

Select the option that is related to the third number in the same way as the second number is related to the first number.
 $289 : 324 :: 441 : ?$

- A 529
- B 484
- C 401
- D 483

Answer: B

Question 29

Select the word from the given options that is similar to the given words and hence belong to the same group.
 Eagle, Ostrich, Kiwi

- A Unicorn
- B Bat
- C Sparrow

D Shark

Answer: C

Question 30

Select the option that is related to the fifth number in the same way as the second number is related to the first number and the fourth number is related to the third number

10 : 142 :: 17 : 359 :: 21 : ?

A 525

B 576

C 529

D 527

Answer: D

Question 31

A, E, I, O, U, H, F and W are sitting around a circular table in clockwise manner in the same sequence at equal distances from each other. Then O and F interchange their positions. If H is facing the north, then which direction will O be facing?

A East

B South-west

C West

D North-east

Answer: D

Question 32

Four words have been given out of which three are alike in some manner, while one is different. Choose the odd one.

A Steam

B Grill

C Fire

D Roast

Answer: C

Question 33

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

SUNDAY : RWKHVE :: ANNUAL : ?

A AOKXWR

B ZPLXVN

C ZPKYVR

D BPKYVQ

Answer: C

Question 34

In the following number series, two numbers have been put within brackets. Select the most appropriate option for these numbers in relation to their inclusion in the series.

1, 5, 17, (39), 65, 101, (145), 197

A The first bracketed number from the left is correct and the second bracketed number from the left is incorrect

B Both the bracketed numbers are incorrect.

C Both the bracketed numbers are correct

D The first bracketed number from the left is incorrect and the second bracketed number from the left is correct.

Answer: D

Question 35

Four numbers have been given out of which three are alike in some manner, while one is different. Choose the odd one.

A 133

B 195

C 171

D 209

Answer: B

Question 36

Four letter-cluster have been given out of which three are alike in some manner, while one is different. Choose the odd one

A QUAIL

B PIOUS

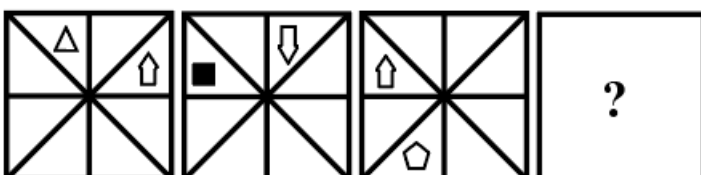
C AEONS

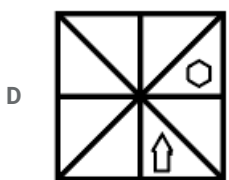
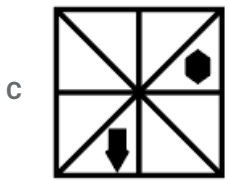
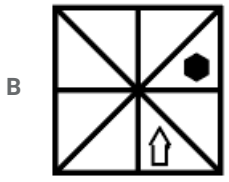
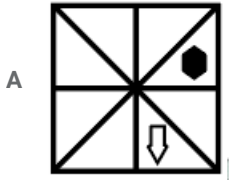
D PENAL

Answer: D

Question 37

Select the figure that will come next in the following figure Series





Answer: A

Question 38

Select the letter that can replace the question mark (?) in the following series.
B, C, E, ?, Q, G

A H

B I

C E

D F

Answer: B

Question 39

Select the option that will fill in the blank and complete the given series.
CYB, FUG, IQL, LMQ, OIV, _____

A PFZ

B REA

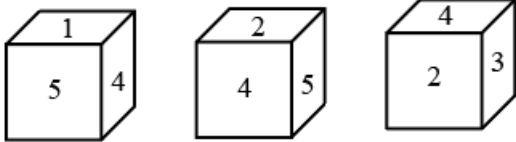
C REZ

D PEA

Answer: B

Question 40

Which number will appear on the bottom face in the last cube?



- A 3
- B 4
- C 1
- D 6

Answer: D

Question 41

Select the option in which the numbers share the same relationship as that shared by the given set of numbers.
(9, 28, 85)

- A (7, 22, 67)
- B (11, 34, 67)
- C (14, 52, 156)
- D (3, 12, 37)

Answer: A

Question 42

Select the option in which the words share the same relationship as that shared by the given pair of words.
Food : Chef

- A Painter : Painting
- B Farmer : Field
- C Film : Producer
- D Hospital : Doctor

Answer: C

Question 43

Select the correct equation after interchanging the operators '-' and '×' and the numbers '4' and '3'.

- A $9 - 4 \times 3 = 21$
- B $4 - 3 \times 9 = 3$
- C $3 \times 4 - 9 = 9$

D $3 \times 9 - 4 = 4$

Answer: B

Question 44

Four pairs of numbers have been given, out of which three are alike in some manner, while one is different. Choose out the odd one

A 42, 72

B 132, 182

C 20, 42

D 56, 63

Answer: D

Question 45

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

Wall : Brick :: Fabric : ?

A Mill

B Skirt

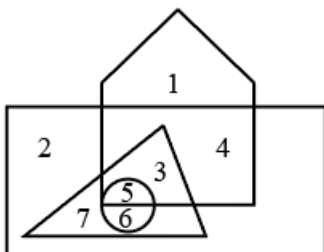
C Design

D Yarn

Answer: D

Question 46

In the following figure, Circle represents Surgeons, Triangle represents Doctors, Rectangles represents Professionals and Pentagon represents Indians. which number represents Indian Doctors who are also surgeons?



A 6

B 7

C 5

D 3

Answer: C

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.

- A Hoof
- B Saddle
- C Chariot
- D Seat

Answer: B

Question 48

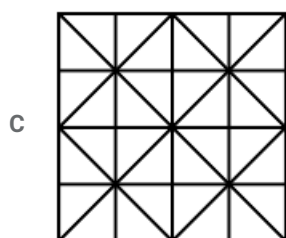
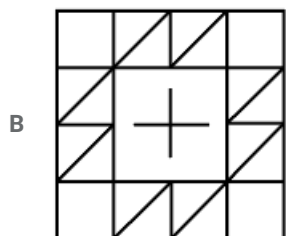
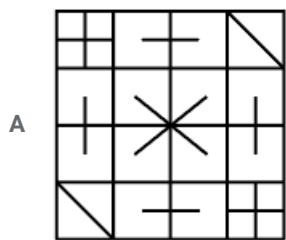
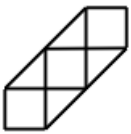
Four pairs of numbers have been given, out of which three are alike in some manner, while one is different. Choose out the odd one.

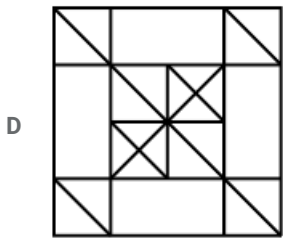
- A 6, 12
- B 24, 4
- C 6, 16
- D 12, 8

Answer: A

Question 49

Select the option in which the given figure is embedded. (Rotation is NOT allowed)





Answer: C

Question 50

A bus driver started from a point 'A' and drove 25 km towards the east. He turned left and drove 30 km. He then turned left and drove 15 km. He again turned left and drove 30 km and reached a point 'B'. How far and in which direction is the point 'B' from the point 'A'?

- A 40 km, East
- B 40 km, West
- C 10 km, West
- D 10 km, East

Answer: D

General Knowledge and General Awareness

Instructions

For the following questions answer them individually

Question 51

In which of the following sectors, 100% FDI in equity in India is NOT permitted as per India's FDI policy?

- A Wholesale trading
- B Single-brand product retail trading
- C E-commerce activities
- D Multi-brand product retail trading

Answer: D

Question 52

Identify the organ which is located on both sides in the human body?

- A Spleen
- B Liver

C Kidney

D Bladder

Answer: C

Question 53

Who was the founder of the Satyashodhak Samaj in the 19th century?

A Swami Vivekananda

B Ishwar Chandra Vidyasagar

C BR Ambedkar

D Jyotiba Phule

Answer: D

Question 54

During the occurrence of thunder and lightning:

A whether lightning is seen first or thunder is heard first will depend upon the distance and angle of the clouds vis-a-vis earth

B lightning is seen at the same time as thunder is heard

C thunder is heard before lightning is seen

D lightning is seen before thunder is heard

Answer: D

Question 55

Colour of the plants is green due to the presence of:

A Chlorophyll

B Urea

C Carbon dioxide

D Oxygen

Answer: A

Question 56

In which city are the summer Olympic Games 2024 to be held?

A Beijing

B Los Angeles

C London

D Paris

Answer: D

Question 57

What is Jaduguda known for?

- A Sandalwood forests
- B Handloom industry
- C One-horned rhinoceros
- D Uranium deposits

Answer: D

Question 58

Which film director was given the Kalamaharshi Baburao Painter Award in the seventh Kolhapur International Film Festival in febraury 2019.

- A Rajkumar Hirani
- B Govind Nihalani
- C Mani Ratnam
- D Ashutosh Gowariker

Answer: B

Question 59

During whose reign did the Moroccan traveller Ibn Battuta visit India in the 14th century?

- A Feroz Shah Tughlaq
- B Jalaluddin Khalji
- C Alauddin Khalji
- D Mohammad Bin Tughlaq

Answer: D

Question 60

The power to enquire into and decide all doubts and disputes arising out of the

- A Chairman of the Rajya Sabha
- B Lokpal
- C High Court of Delhi
- D Supreme Court

Answer: D

Question 61

Which Indian scientist has been chosen for the first Sheikh Saud International Prize for Materials Research by the Centre for Advanced Materials of the UAE?

- A Ashok Sen
- B CNR Rao
- C Jayant Narlikar
- D Raghunath Anant Mashelka

Answer: B

Question 62

As per the Constitution of India, the National Capital Territory of Delhi shall have a Council of Ministers consisting of not more than _____ of the total number of members in the Legislative Assembly.

- A 0.05
- B 0.15
- C 0.2
- D 0.1

Answer: D

Question 63

What is the maximum number of Starred Questions for oral answers admitted for discussion on a particular day in the Lok Sabha?

- A 20
- B 10
- C 15
- D 12

Answer: A

Question 64

Which of the following tribes belongs to Sikkim?

- A Angami
- B Bhutia
- C Gond
- D Chenchu

Answer: B

Question 65

The Governor-General of India was given the title of Viceroy for the first time in:

- A 1859
- B 1858
- C 1856
- D 1857

Answer: B

Question 66

What is the amount of insurance cover available for accidental death under the Pradhan Mantri Suraksha Bima Yojana (PMSBY)?

- A ₹1 lakh
- B ₹4 lakh
- C ₹2 lakh
- D ₹3 lakh

Answer: C

Question 67

Name the famous Indian painter who was honoured with the Kaisar-i-Hind gold medal by the British Viceroy of India, Lord Curzon.

- A Jamini Roy
- B Abanindranath Tagore
- C Raja Ravi Varma
- D Nandalal Bose

Answer: C

Question 68

A wound stops bleeding due to the process of clot formation called:

- A fermentation
- B coagulation
- C transfusion
- D incubation

Answer: B

Question 69

As per the Constitution of India, Panchayats at the intermediate level may not be constituted in a state having a population not exceeding:

- A twenty-five lakh
- B twelve lakh
- C twenty lakh
- D fifteen lakh

Answer: C

Question 70

Which Indian personality was given knighthood by the British monarch but he returned it after the Jallianwala massacre?

- A Rabindranath Tagore
- B Motilal Nehru
- C Gopal Krishna Gokhale
- D Aurobindo Ghosh

Answer: A

Question 71

The term 'Askaryan effect' is associated with which functional area of science?

- A Physics
- B Geology
- C Chemistry
- D Biology

Answer: A

Question 72

Which athlete won a Gold Medal for India in Men's triple jump event after a gap of 48 years in the Asian Games?

- A Amarjeet Singh
- B Renjith Maheshwary
- C Rakesh Babu
- D Arpinder Singh

Answer: D

Question 73

What was India's rank in the Commonwealth Games 2018 in terms of number of gold medals won?

- A Fourth
- B First
- C Third
- D Second

Answer: C

Question 74

In which state is the Ponung folk dance practised?

- A Manipur
- B Arunachal Pradesh
- C Sikkim
- D Assam

Answer: B

Question 75

With which sport is Dattu Bhokanal associated?

- A Kabaddi
- B Archery
- C Equestrian
- D Rowing

Answer: D

Question 76

The function of the retina is to :

- A close the eyes through the eyelids to prevent damage to the lens from excessive light
- B process the information gathered by photoreceptor cells and send it to the brain to decide what the picture is
- C lubricate the eye by releasing tears in a controlled way
- D adjust the focus of the lens for formation of a clear image

Answer: B

Question 77

The solar eclipse occurs when:

- A an asteroid comes between the sun and the moon
- B the moon moves too far away from the sun

C the sun comes between the moon and the earth

D the moon comes between the earth and the sun

Answer: D

Question 78

As per the data released by the Sample Registration System for the year 2016, what is the infant mortality rate in India?

A 34 per 1000 live births

B 23 per 1000 live births

C 47 per 1000 live births

D 43 per 1000 live births

Answer: A

Question 79

Which among the following is NOT one of the three parallel ranges of Himalayas in its longitudinal extent?

A Himadri

B Himshikha

C Shiwaliks

D Himachal

Answer: B

Question 80

Who has become India's first woman IPS officer to successfully complete the South Pole expedition?

A Malavath Purna

B Chhanda Gayen

C Aparna Kumar

D Kalpana Dash

Answer: C

Question 81

The 10 per cent reservation in central government jobs under economically weaker sections (EWS) category is available to the persons whose family income is below:

A ₹7 lakh

B ₹8 lakh

C ₹5 lakh

D ₹6 lakh

Answer: B

Question 82

To which state does the Bagh style of textile art printing belong?

- A Telangana
- B Gujarat
- C Rajasthan
- D Madhya Pradesh

Answer: D

Question 83

Which organisation is operating the Pradhan Mantri Vaya Vandana Yojana of the Government of India?

- A Unit Trust of India
- B Post Office
- C LIC of India
- D State Bank of India

Answer: C

Question 84

Every Panchayat, unless sooner dissolved under any law for the time being in force, shall continue for _____ year/s from the date appointed for its first meeting and no longer.

- A three
- B two
- C five
- D one

Answer: C

Question 85

The sun heats the earth through:

- A convection
- B radiation
- C conduction
- D fission

Answer: B

Question 86

The process of transformation of a substance in a gaseous state into a liquid state due to change in pressure or temperature of the substance is called:

- A evaporation
- B saturation
- C condensation
- D transformation

Answer: C

Question 87

7 Which of the following styles of painting belongs to Maharashtra?

- A Kalam
- B Madhubani
- C Miniature
- D Warli

Answer: D

Question 88

What is the maximum age for joining Atal Pension Yojana?

- A 45 years
- B 35 years
- C 50 years
- D 40 years

Answer: D

Question 89

Which of the following personalities was NOT a recipient of the Bharat Ratna Award in 2019?

- A Nanaji Deshmukh
- B Bhupen Hazarika
- C Shyama Prasad Mukherjee
- D Pranab Mukherjee

Answer: C

Question 90

Who has been elected as the new king of Malaysia in January 2019?

- A Sultan Abdullah
- B Sultan Nazrin Shah
- C Sultan Abdul Halim
- D Sultan Mohammad V

Answer: A

Question 91

Which protein protects the epithelial cells from damage?

- A Collagen
- B Elastin
- C Actin
- D Keratin

Answer: D

Question 92

What will happen if a glass bottle is completely filled with water, sealed with a lid and put into a freezer?

- A The glass bottle will be deformed due to atmospheric pressure on the bottle after the water freezes
- B Eventually, the ice will burst the glass bottle
- C Nothing will happen
- D Weight of the glass bottle will increase after water freezes into ice

Answer: B

Question 93

Home to the snow leopard, the Hemis National Park is located in:

- A Lakshadweep
- B Himachal Pradesh
- C Arunachal Pradesh
- D Ladakh

Answer: D

Question 94

Which king inscribed the Hathigumpha (Elephant Cave) inscription in Udayagiri Hills, Odisha?

- A Galaveya
- B Sobhanaraja
- C Kharavela
- D Vaduka

Answer: C

Question 95

In which state is the Madai festival celebrated?

- A Chhattisgarh
- B Jharkhand
- C Odisha
- D Jammu and Kashmir

Answer: A

Question 96

In which field has Balwant Moreswar Purandare been conferred the Padma Vibhushan Award in 2019?

- A Music-Flute
- B Folk dance
- C Painting
- D Art-Acting-Theatre

Answer: D

Question 97

Sweating or perspiration is nature's way of:

- A releasing excess salt from the body
- B warding off harmful insects through the bad odour of the sweat
- C releasing excess water from the body
4. lowering the internal temperature of the
- D lowering the internal temperature of the body

Answer: D

Question 98

In which state is the archaeological site of Surkotada situated?

- A Rajasthan
- B Karnataka
- C Haryana
- D Gujarat

Answer: D

Question 99

The President may resign from his office by writing under his hand addressed to the:

- A Prime Minister of India
- B Chief Election Commissioner
- C Vice President
- D Speaker of the Lok Sabha

Answer: C

Question 100

As per the 2011 census, Hindi has retained its position as a predominant language spoken by about _____ of the population.

- A 0.3936
- B 0.4625
- C 0.37
- D 0.4363

Answer: D

Quantitative Aptitude

Instructions

For the following questions answer them individually

Question 101

If $x^4 + x^2y^2 + y^4 = 21$, and $x^2 + xy + y^2 = 3$, then what is the value of $4xy$?

- A 12
- B 4
- C -8
- D -4

Answer: C

Question 102

If x is subtracted from each of the numbers 20, 37, 54 and 105, then the numbers so obtained in this order are in proportion. What is the mean proportional between $(7x - 5)$ and $(x + 1)$?

- A 8
- B 6
- C 12
- D 9

Answer: A

Question 103

If 60% of $(x - y) = 45\%$ $(x + y)$ and $y = k\%$ of x , then 21% of k is equal to

- A 7
- B 6
- C 3
- D 1

Answer: C

Question 104

By selling an article for ₹1,134, Anu suffers as much loss as she would have gained by selling it at 10% profit. If she sells it for ₹1,354.50, then her profit percentage is

- A 9
- B 8
- C 8.4
- D 7.5

Answer: D

Question 105

A can do $\frac{2}{5}$ of a work in 6 days and B can do $\frac{2}{3}$ of the same work in 12 days. A and B worked together for 6 days. C alone completed the remaining work in 8 days. A and C, working together, will complete the same work in:

- A 12 days
- B 9 days
- C 10 days
- D 8 days

Answer: C

Question 106

If $x^2 - \sqrt{7}x + 1 = 0$, then $(x^3 + x^{-3}) = ?$

- A $10\sqrt{7}$
- B $4\sqrt{7}$
- C $7\sqrt{7}$
- D $3\sqrt{7}$

Answer: B

Question 107

A, B and C can do piece of work in 30 days, 45 days and 90 days, respectively. A starts the work and he is assisted by B and C together on every third day. In how many days will the work be completed?

- A 23
- B 24
- C $22\frac{1}{2}$
- D 30

Answer: A

Question 108

The value of $\sqrt[1]{7-4\sqrt{3}}$ is closest to

- A 4.1
- B 4.2
- C 1.2
- D 3.7

Answer: D

Question 109

A, B and C started a business with their capitals in the ratio 4 : 2 : 9. At the end of every quarter, A halves his capital, whereas B doubles his capital and C leaves his capital unchanged. If at the end of a year, A's profit was ₹24,000, then what is the total profit (in ₹) is

- A ₹2,16,000
- B ₹2,30,400
- C ₹2,35,200

D ₹2.25,600

Answer: C

Question 110

A circle touches the side BC of a $\triangle ABC$ at P and also touches AB and AC produced at Q and R, respectively. If the perimeter of $\triangle ABC = 26.4$ cm, then the length of AQ is:

A 8.8 cm

B 13.2 cm

C 15.4 cm

D 17.6 cm

Answer: B

Question 111

Two trains running in opposite directions on parallel tracks, at speeds of 42 km/h and 57 km/h, take 18 seconds to cross each other. If the length of one train is 270 m, then the length of the other train is:

A 242 m

B 225 m

C 250 m

D 230 m

Answer: B

Question 112

A sum of money becomes ₹35,680 after 3 years and ₹53,520 after 6 years at a certain rate percentage p.a., interest compounded yearly. What is the compound interest on the same sum in the first case? (Your answer should be nearest to an integer)

A ₹11,983

B ₹11,893

C ₹10,842

D ₹11,938

Answer: B

Question 113

Pipes A, B and C together can fill a cistern in 12 hours. All the three pipes are opened together for 4 hours and then C is closed. A and B together take 10 hours to fill the remaining part of the cistern. C alone will fill two-thirds of the cistern in:

A 40 hours

B 48 hours

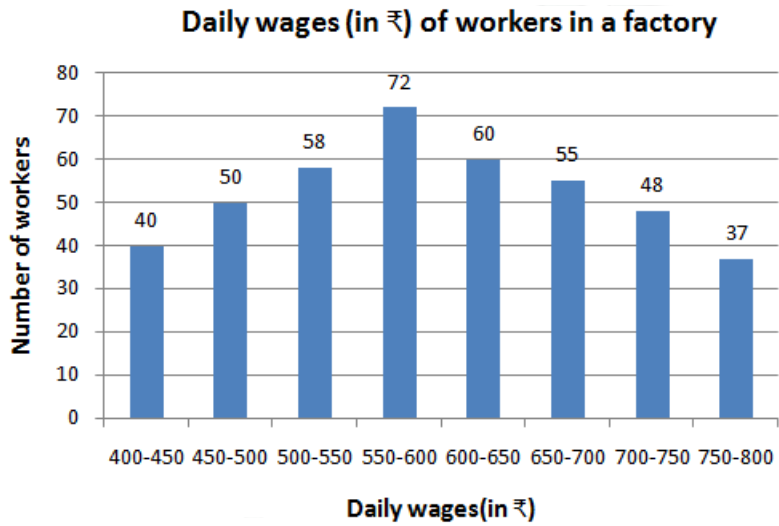
C 60 hours

D 50 hours

Answer: A

Question 114

Study the graph and answer the question



The number of workers in the factory whose daily wages are ₹450 or more but less than ₹600 is

- A 148
- B 180
- C 190
- D 170

Answer: B

Question 115

If the 7-digit number $x468y05$ is divisible by 11, then what is the value of $(x + y)$?

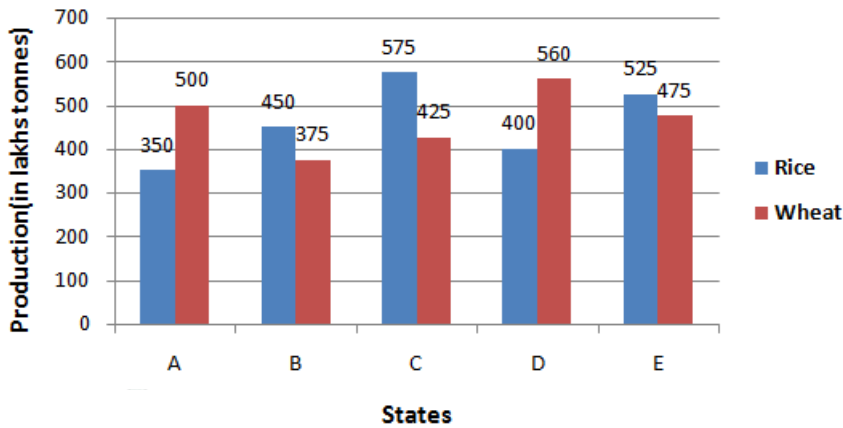
- A 8
- B 10
- C 14
- D 12

Answer: D

Question 116

Study the graph and answer the question.

Production (in lakh tonnes) of rice and wheat in five states of a country in 2018



Total production of wheat in states A, B and E is what percentage less than the total production of rice in states C, D and E?

- A 10
- B 12
- C 12.2
- D 11.1

Answer: A

Question 117

D is a point on the side BC of a $\triangle ABC$ such that $\angle ADC = \angle BAC$. If CA = 10 cm and BC = 16 cm then the length of CD is:

- A 6.25 cm
- B 6.5 cm
- C 7 cm
- D 6 cm

Answer: A

Question 118

The average weight of some students in a class was 60.5 kg. When 8 students, whose average weight was 65 kg, joined the class, then the average weight of all the students increased by 0.9 kg. The number of students in the class, initially, was:

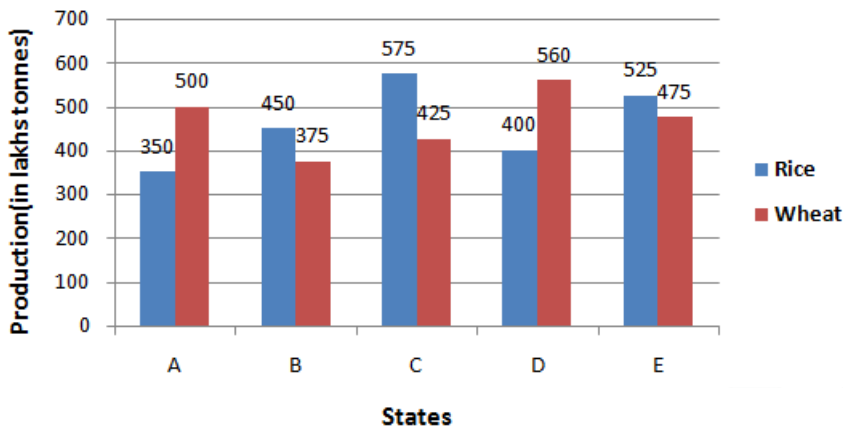
- A 32
- B 40
- C 37
- D 42

Answer: A

Question 119

Study the graph and answer the question.

Production (in lakh tonnes) of rice and wheat in five states of a country in 2018



The ratio of the total production of rice in states C and to the total production of wheat in states B and is

- A 11:10
- B 22:19
- C 20:17
- D 13:12

Answer: A

Question 120

Pipes A, B and C can fill a tank in 10, 15 and 30 hours, respectively. D is an emptying pipe which alone can empty the full tank in x hours. A, B and C are opened together for 3 hours and then closed. Now D is opened which alone empties the tank in 30 hours. What is the value of x ?

- A 40
- B 50
- C 60
- D 45

Answer: B

Question 121

Let x be the least 4-digit number which when divided by 2, 3, 4, 5, 6 and 7 leaves a remainder of 1 in each case. If x lies between 2800 and 3000, then what is the sum of the digits of x ?

- A 15
- B 16

C 12

D 13

Answer: B

Question 122

The average of n numbers is 42. If 75% of the numbers are increased by 4 each and the remaining numbers are decreased by 8 each, then what is the average of the numbers, so obtained?

A 43.8

B 43

C 42.5

D 44

Answer: B

Question 123

A certain sum (in ₹) is invested at simple interest at $y\%$ per annum for at $3\frac{1}{2}$ years. Had it been invested at $(y + 4)\%$ per annum at simple interest, it would have fetched ₹4,452 more as interest. What is the sum?

A ₹42,400

B ₹31,800

C ₹30,400

D ₹42,800

Answer: B

Question 124

When the price of sugar increased by 28%, a family reduced its consumption per month such that the expenditure on sugar was only 12% more than the earlier one. If the family consumed 18.4 kg sugar per month earlier, then what is its new consumption of sugar per month?

A 16.6 kg

B 16.1 kg

C 15.75 kg

D 15.8 kg

Answer: B

Question 125

A person travels a distance of 240 km, partly by train and the rest by bus. He takes $3\frac{1}{2}$ hours if he travels 150 km by the train and the rest by bus. If he travels 140 km by bus and rest by train. He takes $3\frac{2}{3}$ hours. What is the Speed of the train?

A 72 km/h

- B 75 km/h
- C 80 km/h
- D 70 km/h

Answer: B

Question 126

P is a point outside a circle with centre O, and it is 14 cm away from the centre. A secant PAB drawn from P intersects the circle at the points A and B such that PA = 10 cm and PB = 16 cm. The diameter of the Circle is:

- A 10 cm
- B 13 cm
- C 12 cm
- D 11 cm

Answer: C

Question 127

If $\frac{1}{\operatorname{cosec} \theta + 1} + \frac{1}{\operatorname{cosec} \theta - 1} = 2 \sec \theta$, $0^\circ < \theta < 90^\circ$, then the value of $\frac{\tan \theta + 2 \sec \theta}{\operatorname{cosec} \theta}$ is:

- A $\frac{2 + \sqrt{3}}{2}$
- B $\frac{4 + \sqrt{2}}{2}$
- C $\frac{2 + \sqrt{2}}{2}$
- D $\frac{4 + \sqrt{3}}{2}$

Answer: B

Question 128

The marked price of an article is ₹530. After two successive discounts, it is sold for ₹396.44. If the first discount is 15%, and the second discount is x%, then what is the value of x?

- A 10.5
- B 10
- C 12.5
- D 12

Answer: D

Question 129

If $x + y + z = 10$, $xy + yz + zx = 25$ and $xyz = 100$, then what is the value of $(x^3 + y^3 + z^3)$?

- A 450
- B 540
- C 550
- D 570

Answer: C

Question 130

After allowing 10% discount on the marked price of an article, a person makes a profit of 16%. If the cost price of the article is ₹648, then its marked price is:

- A ₹826.80
- B ₹835.20
- C ₹751.68
- D ₹910.40

Answer: B

Question 131

Total surface area of a right circular cylinder is 1848 cm^2 . The ratio of its total surface area to the curved surface area is 3:1. The volume of the cylinder is: (Take $\pi = \frac{22}{7}$)

- A 3696 cm^3
- B 4312 cm^3
- C 4002 cm^3
- D 4851 cm^3

Answer: B

Question 132

The radius of the base of a solid right circular cone is 8 cm and its height is 15 cm. The total surface area of the cone is:

- A 128π
- B 200π
- C 136π
- D 120π

Answer: B

Question 133

If $(\cos \theta + \sin \theta) : (\cos \theta - \sin \theta) = (\sqrt{3} + 1) : (\sqrt{3} - 1)$, $0^\circ < \theta < 90^\circ$, then what is the value of $\sec \theta$?

- A 1
- B 2
- C $\sqrt{2}$
- D $\frac{2\sqrt{3}}{3}$

Answer: D

Question 134

When 2388, 4309 and 8151 are divided by a certain 3-digit number, the remainder in each case is the same. The remainder is:

- A 39
- B 23
- C 19
- D 15

Answer: D

Question 135

From the top of a house A in a street, the angles of elevation and depression of the top and foot of another house B on the opposite side of the street are 60° and 45° , respectively. If the height of house A is 36 m, then what is the height of house B? (Your answer should be nearest to an Integer.)

- A 91 m
- B 93 m
- C 94 m
- D 98 m

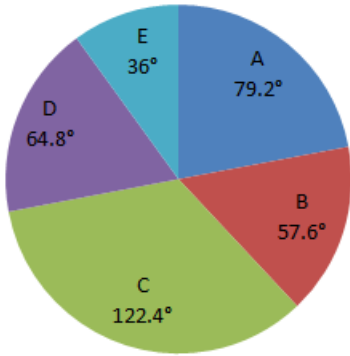
Answer: D

Question 136

Study the pie-chart and answer the question.

Distribution (degree-wise) of the number of employees of a company working in 5 departments A, B, C, D and E.

Total number of employees = 3200



The number of employees working in department C is what percentage more than the total number of employees working in D and E? (Your answer should be correct to one decimal place.)

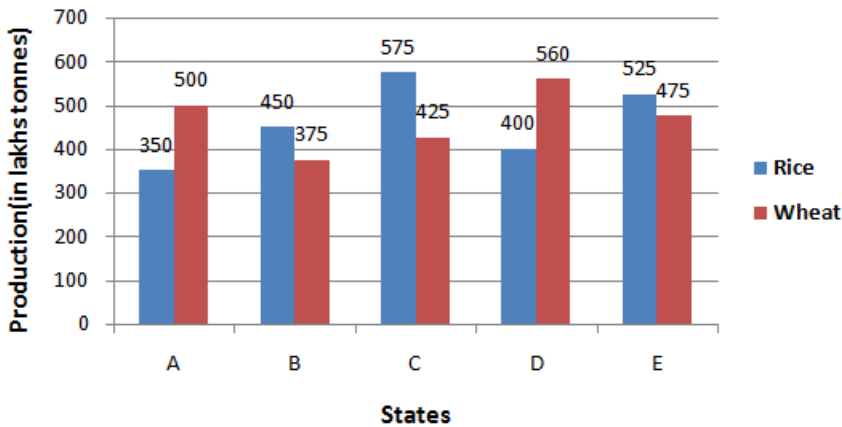
- A 23.2
- B 20.6
- C 22.8
- D 21.4

Answer: D

Question 137

Study the graph and answer the question.

Production (in lakh tonnes) of rice and wheat in five states of a country in 2018



The number of states in which the production of wheat is more than 20% of the total production of rice in all five states is

- A 4
- B 3
- C 2
- D 1

Answer: B

Question 138

I is the in centre of $\triangle ABC$. If $\angle BIC = 108^\circ$, then $\angle A = ?$

- A 54°
- B 72°
- C 81°
- D 36°

Answer: D

Question 139

The Value of $\frac{0.325 \times 0.325 + 0.175 \times 0.175 - 25 \times 0.00455}{5 \times 0.0065 \times 3.25 - 7 \times 0.175 \times 0.025}$ lies between

- A 0.25 and 0.35
- B 0.05 and 0.15
- C 0.15 and 0.25
- D 0.35 and 0.45

Answer: A

Question 140

The sides of a triangular park are 60 m, 112 m and 164 m. The cost of levelling the park at the rate of ₹8.50/m² is:

- A ₹18,316
- B ₹17,136
- C ₹18,164
- D ₹17,085

Answer: B

Question 141

The value of $5 \div [5 + 8 - \{4 + (4 \text{ of } 2 \div 4) - (2 \div 4 \text{ of } 2)\}]$ is

- A $\frac{5}{8}$
- B $\frac{5}{7}$
- C $\frac{20}{29}$
- D $\frac{20}{23}$

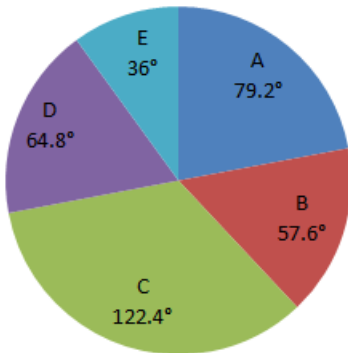
Answer: C

Question 142

Study the pie-chart and answer the question.

Distribution (degree-wise) of the number of employees of a company working in 5 departments.A,B,C,D and E

Total number of employees = 3200



If the total number of employees working in departments A and B exceeds the number of employees in department C by x, then x lies between:

- A 120 and 140
- B 100 and 120
- C 80 and 100
- D 140 and 160

Answer: A

Question 143

The circumference of a circle exceeds its diameter by 60 cm. The area of the circle is: Take ($\pi = \frac{22}{7}$)

- A 536 cm^2
- B 1078 cm^2
- C 346.5 cm^2
- D 616 cm^2

Answer: D

Question 144

The value of $(5\frac{1}{4} \div 7\frac{3}{2}) \div (5\frac{1}{9} - 7\frac{7}{8} \div 9\frac{9}{20}) \times \frac{11}{21} + (2 \div 2\frac{1}{2})$ is:

- A $\frac{9}{4}$
- B 5
- C 3

D $\frac{7}{2}$

Answer: B

Question 145

The angles of elevation of the top of a tower from two points on the ground at distances 32 m and 18 m from its base and in the same straight line with it are complementary. The height(in m) of the tower is

A 24

B 20

C 28

D 16

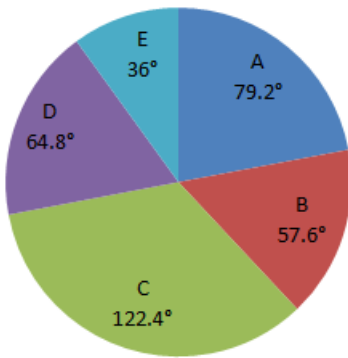
Answer: A

Question 146

Study the pie-chart and answer the question.

Distribution(Degree-wise)of the number of the employees of a company working in 5 departments A,B,C,D and E

Total number of employees = 3200



If the ratio of male employees and female employees working in department D is 4 : 5 and that in department E is 9: 11, then what is the ratio of the total male employees in D and E to the number of employees in B?

A 31:32

B 25:32

C 7:8

D 15:16

Answer: B

Question 147

If A's income is 40% of B's income and B's income is 24% more than C's income, then by what percentage is C's income more than A's income? (Your answer should be correct to one decimal place.)

A 75.6

B 101.6

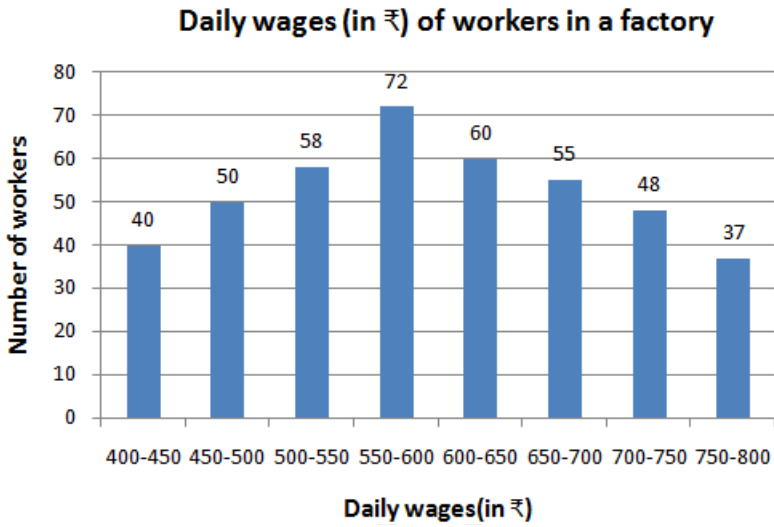
C 104.2

D 50.4

Answer: B

Question 148

Study the graph and answer the question.



The number of workers in the factory whose daily wages are ₹500 or more but less than ₹650 is what percentage more than the number of workers whose daily wages are ₹650 or more but less than ₹750? (Your answer should be correct to one decimal place.)

A 84.5

B 45.8

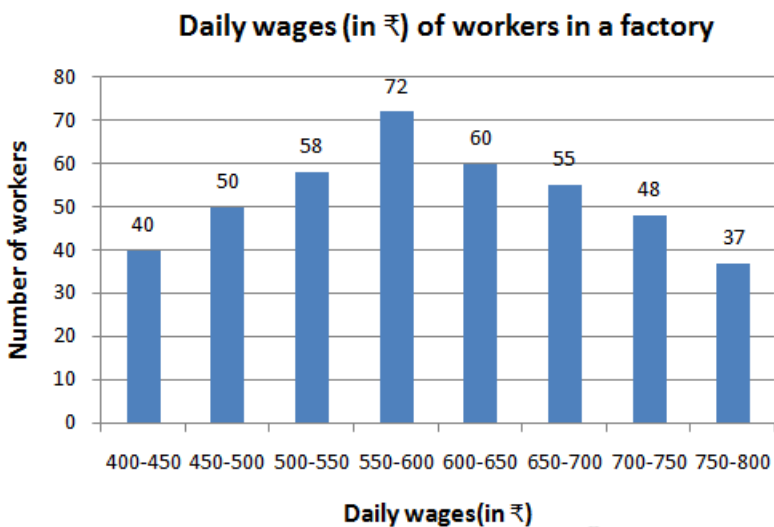
C 75.4

D 76.6

Answer: A

Question 149

Study the graph and answer the question.



The ratio of the number of workers in the factory whose daily wages are below ₹600 to the number of workers whose daily wages are more than ₹650 but less than ₹800 is

- A 2:1
- B 11:10
- C 17:14
- D 11:7

Answer: D

Question 150

A solid metallic sphere of radius 8.4 cm is melted and recast into a right circular cylinder of radius 12 cm. What is the height of the cylinder? (Your answer should be correct to one decimal place.)

- A 7.0 cm
- B 6.0 cm
- C 6.5 cm
- D 5.5 cm

Answer: D

English Comprehensio

Instructions

For the following questions answer them individually

Question 151

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

My mother speaks in so a low voice that it is difficult to understand what she is saying.

- A that it is difficult to understand
- B what she is saying
- C My mother speaks
- D in so a low voice

Answer: D

Question 152

Select the most appropriate antonym of the given word.

CONTIGUOUS

- A contactual
- B separated

C neighbouring

D adjoining

Answer: B

Question 153

Select the most appropriate word to fill in the blank.

Do not Meddle the affairs of others.

A from

B in

C to

D at

Answer: B

Question 154

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'.

This is place where Krishna was born.

A No substitution required

B This is the place

C This is a place

D This be the place

Answer: B

Instructions

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

India generates at least 25,940 tonnes of plastic waste daily, equivalent to the weight of around 4,300 elephants. Of this, about 60% gets recycled, according to the Union environment ministry. The rest gets dumped in landfills, clogs drains, goes into the ocean as micro-plastics, or is burnt, leading to air pollution.

In the absence of a proper waste management system, the plastics that get recycled are often dirty, which makes the re-cycling process water-intensive and expensive.

"It is the process of cleaning the plastics before recycling that makes it resource intensive. A lot of water is required to wash the collected plastics, especially if it is oily or greasy as it has to be cleaned with a solvent," said Dr Suneel Pandey, director of environment and waste management, The Energy and Resources Institute (TERI).

Experts say proper waste collection and management is at the core of ensuring more plastics get recycled instead of ending up in landfills and oceans.

Researchers from various institutes have come up with innovative ways to utilise the plastic waste that cannot be recycled further or are unrecyclable.

At IIT Delhi, a group of chemical engineers are working on chemically breaking down plastics to its smaller hydrocarbon molecules and then synthesising diesel out of it. The process uses packaging material, Polyethylene terephthalate (PET) bottles, polystyrene, and multi-layer packaging.

The fuel produced can currently be used as a blend in stationary diesel machines like generators and needs further testing and

standardisation to be used as commercial diesel in vehicles.

A mix of plastic and stone has been used to create a block that can be used in flooring. A CSIR laboratory also used shredded plastics, chemically treated it and mixed with fillers to make tiles.

A German chemical producer called BASF is also breaking down waste plastic and using it as raw material for chemicals, instead of using material derived from fossil fuels.

One cost-effective solution was developed by Dr Rajagopalan Vasudevan, professor at Thiagarajar College of Engineering in Madurai. The National Highways Authority of India is currently scaling up his technology to use plastic waste in making roads.

He came up with the idea of mixing plastic waste with Bitumen used for constructing roads in 2001. "That year the Tamil Nadu government had planned to ban plastic and my concern began with the more than 1 lakh people employed by the industry. Since plastic is derived from petroleum just like Bitumen, I thought of using it for road construction. The result, not only plastic waste was getting utilised, the roads were cheaper and steadier," he said. The plastic waste does not have to be segregated and even multi-layered plastics can be used in the mix. "All we need to do is collect the waste, dry it out and use it," he said. The construction of every kilometre of road required nine tonnes of Bitumen and one tonne of plastic waste. This means for every kilometre of road, one-tonne Bitumen is saved, which costs about ₹30,000.

Question 155

What has been developed by Dr Rajagopalan Vasudevan, professor at Thiagarajar College of Engineering in Madurai?

- A method for using plastic for road construction
- B method for using plastic to make tiles and blocks
- C method for extracting raw material for chemicals
- D method for making diesel from plastic waste

Answer: D

Question 156

Which organization makes blocks and tiles from the plastic waste?

- A IIT, Delhi
- B CSIR
- C TERI
- D BASF

Answer: B

Question 157

What has been developed by Dr Rajagopalan Vasudevan, professor at Thiagarajar College of Engineering in Madurai?

- A method for using plastic for road construction
- B method for using plastic to make tiles and blocks
- C method for extracting raw material for chemicals
- D method for making diesel from plastic waste

Answer: A

Question 158

The above passage mainly talks about

- A the problems of recycling plastic waste.
- B putting the plastic waste to use by recycling.
- C the need of research to manage plastic waste.
- D the plastic waste generated in India.

Answer: B

Question 159

What makes the recycling of plastic resource-intensive?

- A the collection of plastic waste
- B the breaking down of plastic in molecules
- C the cleaning of the plastic waste
- D the research required for recycling

Answer: C

Instructions

For the following questions answer them individually

Question 160

Select the most appropriate word which means the same as the group of words given

A word formed from the initial letters of other words

- A homonym
- B pseudonym
- C acronym
- D toponym

Answer: C

Question 161

Select the wrongly spelt word.

- A effigy
- B effect
- C effort
- D effecient

Answer: D

Question 162

Select the most appropriate synonym of the given word.

CONDEMN

- A commend
- B denounce
- C compliment
- D approve

Answer: B

Question 163

Select the wrongly spelt word.

- A capritious
- B fictitious
- C nutritious
- D Ambitious

Answer: A

Question 164

Identify the segment in the sentence which contains the grammatical error. If there is no error, then select option 'No error'.
The prices of tomatoes has soared up to Rs. 65-70 per kg in many parts of the country.

- A in many parts of the country
- B soared up
- C The prices of tomatoes has
- D No error

Answer: C

Question 165

Select the most appropriate word to fill in the blank.

_____ the train was late by six hours, it made up three hours before reaching its destination.

- A Because
- B In case
- C In spite of
- D Although

Answer: D

Question 166

Identify the segment in the sentence which contains the grammatical error. If there is no error, then select option 'No error'.
The J&K Administration has withdrew the advisory asking tourists to cut short their visit to Kashmir.

- A their visit to Kashmir.
- B asking tourists to cut short
- C has withdrew the advisory
- D No error

Answer: C

Question 167

Select the most appropriate synonym of the given word.

ENGULF

- A uncover
- B dry
- C inundate
- D neglect

Answer: C

Question 168

Select the most appropriate meaning of the given idiom.

Up in arms

- A to be nervous
- B to be rude
- C to be angry
- D to be defensive

Answer: C

Question 169

Select the most appropriate meaning of the given Idiom.

Left out in cold

- A to stand out
- B to be criticised
- C to be ignored
- D to be indecisive

Answer: C

Question 170

Select the most appropriate word which means the same as the group of words given.

A government run by a king or a queen

- A plutocracy
- B aristocracy
- C monarchy
- D oligarchy

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 substitution required'.

No sooner did it begin to rain that all the guests ran inside.

- A No substitution required
- B so that all the guests
- C than all the guests
- D when all the guests

Answer: C

Question 172

Select the most appropriate synonym of the given word.

OFFEND

- A annoy
- B assuage
- C aid
- D assist

Answer: A

Question 173

Select the most appropriate antonym of the given word.

Subscribe

- A ease
- B enlarge
- C diminish

D abate

Answer: B

Question 174

Select the most appropriate meaning of the given idiom.
Handle with kid gloves

A to treat someone with extreme care

B to accomplish something too ambitious

C to show someone your creativity

D to remove all hurdles to start something

Answer: A

Question 175

Select the most appropriate word which means the same as the group of words given.
One who is easily deceived

A delible

B gullible

C incorrigible

D infallible

Answer: B

Question 176

Select the most appropriate word which means the same as the group of words given.
One who holds a post without any salary

A highbrow

B volunteer

C samaritan

D honorary

Answer: D

Question 177

Select the most appropriate synonym of the given word.
PARSIMONY

A generosity

B frugality

C readiness

D bounty

Answer: B

Question 178

Select the most appropriate meaning of the given idiom
Run around in circles

A to keep running to set a record

B to keep doing something without achieving much

C to work excessively hard by keeping two jobs

D to remain busy with your work

Answer: B

Question 179

Select the most appropriate word to fill in the blank.
Please don't disturb me. I _____ to solve a sum.

A am trying

B try

C have tried

D tried

Answer: A

Question 180

Select the most appropriate word which means the same as the group of words given.
That cannot be approached easily

A inevitable

B invincible

C inaccessible

D inaudible

Answer: C

Question 181

Identify the segment in the sentence which contains the grammatical error.
Note down my phone number in case you needs to ring me up.

A in case you needs

B my phone number

C to ring me up

D Note down

Answer: A

Question 182

Select the wrongly spelt word.

A desert

B descent

C describe

D discern

Answer: D

Question 183

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

The Government is setting up a special surveillance cell for epidemic-prone diseases at flood-ravaged Bihar.

A The Government is setting up

B a special surveillance cell

C for epidemic-prone diseases

D at flood-ravaged Bihar

Answer: D

Question 184

Select the most appropriate meaning of the given idiom

Work against the clock

A work against all problems

B work late in the night

C work with concentration

D work in great hurry

Answer: D

Question 185

Select the wrongly spelt word.

A behold

B benethe

C bench

D begin

Answer: B

Question 186

Select the most appropriate word/s to fill in the blank.
Only _____ girls were present in the class today.

A a few

B several of

C many

D a lot of

Answer: A

Question 187

Select the most appropriate word to fill in the blank.
You must apologize _____ the punishment.

A to escape

B escaping

C escape

D escapes

Answer: A

Question 188

Select the most appropriate antonym of the given word.

A begin

B finish

C trigger

D commence

Answer: B

Question 189

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'.

Tomatoes sown around July in the southern states are harvested in October.

A Tomatoes sow around July

B Tomatoes sowing around July

C Tomatoes sown under July

D No substitution required

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 blank.

Comprehension:

After coffee had been served in different-sized cups and mugs, the chief rose (1)_____ his place at the head of the table (2)_____ a speech of welcome, (3)_____ Aziz translated. Scott made a short (4)_____, which was applauded even before Aziz had been given the (5)_____ to interpret what he had said.

Question 190

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

A in to

B on

C from

D to

Answer: C

Question 191

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

A make

B to make

C makes

D made

Answer: B

Question 192

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

A whom

B who

C which

D what

Answer: C

Question 193

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

- A rejoin
- B reply
- C respond
- D retort

Answer: B

Question 194

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

- A probability
- B moment
- C chance
- D turning

Answer: C

Instructions

For the following questions answer them individually

Question 195

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'.

I made them cleaning the room thoroughly.

- A I made them clean
- B No Substitution required
- C I make them cleansing
- D I make them Clean

Answer: A

Question 196

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'.

When the PMC Bank failed many people's lives were ruining.

- A No substitution required
- B were ruined
- C was ruined
- D has ruined

Answer: B

Question 197

Select the most appropriate antonym of the given word.

STABLE

- A even
- B shaky
- C reliable tough
- D tough

Answer: B

Question 198

Select the most appropriate synonym of the given word

APPARENT

- A obvious
- B doubtful
- C dubious
- D obscure

Answer: A

Question 199

Select the wrongly spelt word.

- A dive
- B devine
- C divide
- D deviate

Answer: B

Question 200

Select the most appropriate antonym of the given word.

CONSUME

- A save
- B absorb
- C devour
- D exhaust

Answer: A