

**RRB JE**  
**31st May 2019**  
**Shift-1**

**Instructions**

For the following questions answer them individually

**Question 1**

**Where is the Lakh Bahosi Sanctuary located?**

- A Odisha
- B West Bengal
- C Jharkhand
- D Uttar Pradesh

**Answer: D**

**Question 2**

**A cyclic hydrocarbon with the molecular formula  $C_6H_6$  is-**

- A Methane
- B Cyclo pentane
- C Naphthalene
- D Benzene

**Answer: D**

**Question 3**

**Which product of petroleum is used to drive heavy vehicles like truck?**

- A Petrol
- B Petroleum gas
- C Kerosene
- D Diesel

**Answer: D**

**Question 4**

**Express the the following expression in terms of partial fraction :**

$$\frac{X}{(X+1)^2}$$

- A  $\frac{1}{X+1} + \frac{1}{(X+1)^2}$
- B  $\frac{1}{X+1} + \frac{X-1}{(X+1)^2}$
- C  $\frac{1}{X+1} - \frac{1}{(X+1)^2}$

D  $X+1 - (X+1)^2$

Answer: C

Explanation:

By option C,

$$X+1 - (X+1)^2 = \frac{[(X+1) - 1]}{(X+1)^2} = \frac{X}{(X+1)^2}$$

Question 5

Three 2 V cells are connected in series and used as a battery in a circuit. What is the potential difference at the terminals of the battery?

A 1 Volts

B 2 Volts

C 6 Volts

D 4 Volts

Answer: C

Question 6

Which colour among the seven colours of the white light gets most deviated after dispersion of light through a glass prism?

A Violet

B Orange

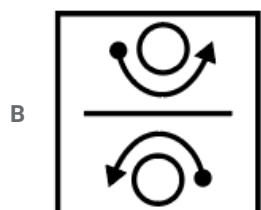
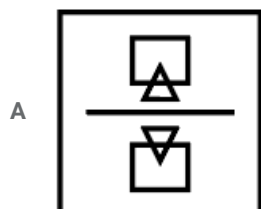
C Indigo

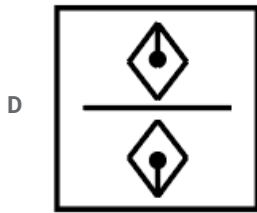
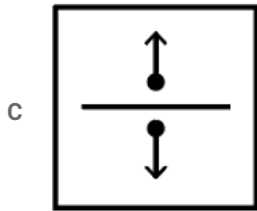
D Red

Answer: A

Question 7

Find the ODD oneout from the given options.





Answer: B

#### Question 8

Which of the following vitamins is NOT fat soluble?

- A Vitamin K
- B Vitamin D
- C Vitamin C
- D Vitamin A

Answer: C

#### Question 9

Which of the following scientist(s) was awarded Nobel Prize in Genetics ?

- A Bateson
- B Morgan
- C Both Morgan and Khorana
- D Khorana

Answer: C

#### Question 10

The reaction between sodium hydroxide with zinc gives the product-

- A Reaction is not possible
- B Sodium zincate
- C Zinc oxide
- D Zinc hydroxide

Answer: B

**Question 11**

The knee cap is called as

- A Malus
- B Fibula
- C Scapula
- D Patella

**Answer: D**

**Question 12**

**Evaluate:**  $\left(\frac{\sin 47^\circ}{\cos 43^\circ}\right)^2 + \left(\frac{\cos 43^\circ}{\sin 47^\circ}\right)^2 - 4\cos^2 45^\circ$

- A -3
- B 0
- C 1
- D 2

**Answer: B**

**Explanation:**

$$\begin{aligned} & \left(\frac{\sin 47^\circ}{\cos 43^\circ}\right)^2 + \left(\frac{\cos 43^\circ}{\sin 47^\circ}\right)^2 - 4\cos^2 45^\circ \\ \Rightarrow & \left(\frac{\sin 47^\circ}{\cos(90-47)^\circ}\right)^2 + \left(\frac{\cos 43^\circ}{\sin(90-43)^\circ}\right)^2 - 4 \times \left(\frac{1}{\sqrt{2}}\right)^2 \\ \Rightarrow & \left(\frac{\sin 47^\circ}{\sin 47^\circ}\right)^2 + \left(\frac{\cos 43^\circ}{\cos 43^\circ}\right)^2 - 2 = 1 + 1 - 2 = 0 \end{aligned}$$

**Question 13**

An alkali is a base that dissolves in

- A Water
- B Acid
- C Mercury
- D Kerosene

**Answer: A**

**Question 14**

Find the ODD one out.

2222, 222.2, 22.22, 2.222

- A 22.22

B 222.2

C 2.222

D 2222

Answer: D

**Question 15**

Pooja's age 4 years back and Deepa's age after 4 years are equal. The ratio of Pooja's age 4 years hence and Deepa's age 4 years before is 3 : 1. What is the ratio of their present ages?

A 5 : 2

B 5 : 7

C 4 : 7

D 5 : 3

Answer: D

**Explanation:**

let the present age of Pooja and Deepa are x and y respectively

4 years ago age of pooja =  $x - 4$

4 years ago age of Deepa =  $y - 4$

4 years hence Pooja's age =  $x + 4$

4 years hence Deepa's age =  $y + 4$

Pooja's age 4 years back and Deepa's age after 4 years are equal  $\Rightarrow x - 4 = y + 4$

solving,  $x - y = 8$ .....(1)

ratio of Pooja's age 4 years hence and Deepa's age 4 years before is 3 : 1

$$\frac{x+4}{y-4} = \frac{3}{1}$$

solving,  $3y - x = 16$ .....(2)

from (1) and (2)

$$x = 8 + y$$

$$16 = 3y - (8 + y)$$

$$16 = 3y - 8 - y$$

$$24 = 2y$$

$$y = 12$$

$$x = 20$$

ratio of their present ages = 20 : 12

$$= 5 : 3$$

**Question 16**

Where is insulin produced in the human body?

A Pancreas

B Spleen

C Liver

D Bile duct

Answer: A

#### Question 17

Vijayan started walking towards south. After walking 15 m, he turned left and walked 15 m. He again turned left and walked 15 m. How far and in which direction is he from his starting point?

A 15 m, south

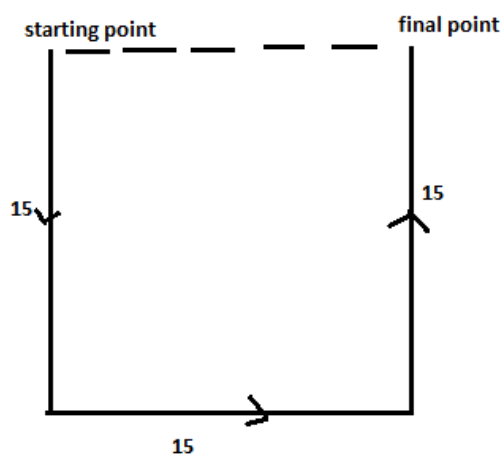
B 30 m, east

C 15 m, east

D 15 m, west

Answer: C

Explanation:



#### Question 18

Which of these countries was created in the twentieth century?

A Japan

B USA

C Nepal

D Bangladesh

Answer: D

#### Question 19

Which of the following form a set of homologous series?

A Ethyne, propyne and butyne

B Ethane, methane and propene

C Ethane, methane and ethyne

D Ethyne, propyne and butene

Answer: A

**Question 20**

If 'sti nro kti' stands for 'clouds pour down', 'nro bsi mit' stands for 'down he goes', and 'bsi nro zpi' stands for 'died down he', which word would mean 'goes'?

- A mit
- B bsi
- C kti
- D nro

**Answer: A**

**Explanation:**

down = nro

he = bsi

goes = mit

**Question 21**

If  $5 \# 3 @ 3 = 12$  and  $7 \# 2 @ 4 = 10$ , then what will be  $2 \# 9 @ 5$ ?

- A 29
- B 32
- C 13
- D 26

**Answer: C**

**Explanation:**

$5 \# 3 @ 3 = 12$  and  $7 \# 2 @ 4 = 10$

here # is multiplication and @ is subtraction

$$5 * 3 - 3 = 12$$

$$7 * 2 - 4 = 10$$

so,

$$2 \# 9 @ 5 = 2 * 9 - 5 = 13$$

**Question 22**

Which of the following can be produced by dolphins, porpoises, bats and rats?

- A Infrasound
- B Note
- C Music
- D Ultrasound

**Answer: D**

**Question 23**

If  $3\sqrt{5} + \sqrt{125} = 17.88$ , then find the value of  $\sqrt{80} + 6\sqrt{5}$

- A 22.35
- B 18.75
- C 20.235
- D 22.25

**Answer:** A

**Explanation:**

$$3\sqrt{5} + \sqrt{125} = 17.88$$

$$3\sqrt{5} + \sqrt{25 \times 5} = 17.88$$

$$3\sqrt{5} + 5\sqrt{5} = 17.88$$

$$8\sqrt{5} = 17.88$$

then,

$$\sqrt{80} + 6\sqrt{5} = \sqrt{16 \times 5} + 6\sqrt{5}$$

$$= 4\sqrt{5} + 6\sqrt{5}$$

$$= 10\sqrt{5}$$

if  $8\sqrt{5} = 17.88$ , then

$$10\sqrt{5} = 22.35$$

**Question 24**

If in a certain language 'CHAMPION' is coded as 'HCMAIPNO', how is 'NEGATIVE' coded in that code?

- A ENGAETVI
- B ENAGITEV
- C ENAGVEIT
- D EGAITEVN

**Answer:** B

**Explanation:**

the 1st and 2nd letter are swapped, then 3rd and 4th letter are swapped, similarly 5th and 6th, 7th and 8th letters are swapped

NEGATIVE = ENAGITEV

**Question 25**

Resistance (R) = Voltage(V)/ \_\_\_\_\_.

- A Current (I)
- B Charge (Q)
- C Work (J)
- D Power (P)

**Answer:** A



**Question 26**

A number leaves a remainder 4 when divided by 6. What is the remainder when its square is divided by 6?

- A 2
- B 3
- C 5
- D 4

Answer: D

**Question 27**

If 'PLAY' is coded as 8123 and 'RHYME' is coded as 49367, then how is 'MALE' coded?

- A 6217
- B 6285
- C 6198
- D 6395

Answer: A

**Explanation:**

'PLAY' is coded as 8123

here ,P = 8 ,L = 1 , A = 2 , Y = 3

'RHYME' is coded as 49367

here ,R = 4 ,H = 9 , Y = 3 , M = 6 , E = 7

'MALE' will be coded as 6217

**Question 28**

Which celestial body was considered as a planet till 2006 and not a planet after that?

- A Mercury
- B Jupiter
- C Pluto
- D Venus

Answer: C

**Question 29**

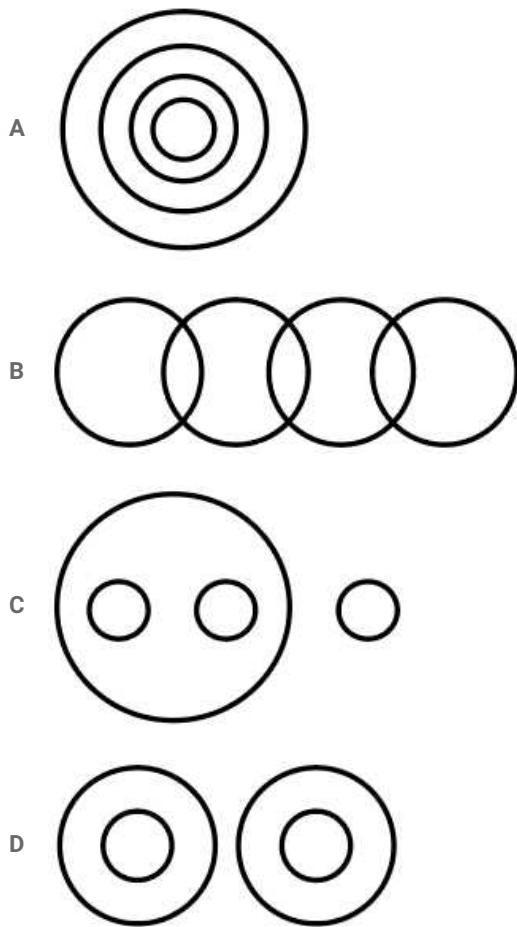
Two tables are bought for Rs.2000 by a person. He sells them later, one at a loss of 5%, the other at a gain of 5% thereby incurring a loss of Rs.20. What are the cost prices of the two tables?

- A Rs.1400, Rs.600
- B Rs.1300, Rs.700
- C Rs.1200, Rs.800
- D Rs.1050, Rs.950

Answer: C

**Question 30**

Choose the figure that best represents the relationship among the classes given below.  
Indoor games, Chess, Table tennis, Cricket



Answer: C

**Explanation:**

option c is correct because table tennis and chess are indoor games so they are inside indoor games  
cricket is an outdoor game so it has no relation with indoor games circle

**Question 31**

Which of the following denotes currency with the public?

- A M1
- B M2
- C M3
- D M4

Answer: A

**Question 32**

With which of the following sports is the term 'pitcher' associated?

- A Cricket
- B Base ball
- C Volley ball
- D Football

**Answer: B**

**Question 33**

A certain sum invested for T years at 10% per annum Simple Interest amounts to Rs.400. The amount gets halved when the interest comes down to 4% per annum, the principal and time being the same. What is the principal and value of T?

- A T = 50 years; P = Rs.200/3
- B T = 50 years; P = Rs.200
- C T = 25 years; P = Rs.200/3
- D T = 50 years; P = Rs.100

**Answer: A**

**Question 34**

Complete the series.

33, 36, 12, 15, 5, (...)

- A 4
- B 6
- C 10
- D 8

**Answer: D**

**Explanation:**

there is 2 different series

33,12,5 and 36,15,x

$$33 - 21 = 12$$

$$12 - 7 = 5$$

similarly

$$36 - 21 = 15$$

$$15 - 7 = 8$$

**Question 35**

**Find the wrong number in the given series.**

**360, 120, 60, 20, 11**

- A 11
- B 360
- C 20
- D 60

**Answer: A**

**Explanation:**

there are 2 different series

360,60,11 and 120,20

each number is divided by 6 to get the next number

$120/6=20$

$360/6=60$

60/6 should be 10 and not 11 so 11 is the wrong number

**Question 36**

**Babu Lal Marandi was the first chief minister of which Indian state?**

- A Uttar Pradesh
- B Karnataka
- C Jharkhand
- D Chhattisgarh

**Answer: C**

**Question 37**

**For what values of 'K' does the equation  $x^2 + 2Kx + 4 = 0$  have one real solution?**

- A 2, -2
- B 0
- C 2, 0
- D -2, 0

**Answer: A**

**Question 38**

**The frictional force on an object in a fluid depends on what?**

- A Shape of the object
- B All of the options

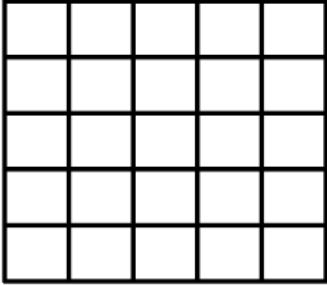
C Its speed with respect to the fluid

D Nature of the fluid

Answer: B

**Question 39**

How many squares are there in the given figure?



A 45

B 23

C 36

D 55

Answer: D

**Question 40**

Palaeontology deals with the study of -

A Bones

B Fossils

C Hard shells

D Feathers

Answer: B

**Question 41**

What was the name of the space shuttle that landed man on the moon?

A Challenger

B Eagle

C Apollo

D Columbia

Answer: C

**Question 42**

Find the missing number in the following series.

5, 69, 101, (...), 125, 129

A 117

B 112

C 126

D 103

**Answer: A**

**Explanation:**

$$5 + 2^6 = 69$$

$$69 + 2^5 = 101$$

$$101 + 2^4 = 117$$

$$117 + 2^3 = 125$$

$$125 + 2^2 = 129$$

**Question 43**

After completing a work together in 2 days, P and Q received Rs.1200 and Rs.400 respectively as wages. In how many days will Q alone complete the work?

A 1/3 days

B 8 days

C 6 days

D 3 days

**Answer: B**

**Explanation:**

ratio of efficiency of P and Q is

$$P : Q = 1200 : 400 = 3 : 1$$

$$\text{total work} = \text{time} * \text{efficiency} = 4 * 2 = 8$$

$$\text{Q alone can do the work in} = \text{work/efficiency} = 8/1 = 8 \text{ days}$$

**Question 44**

Which of the following devices uses Archimedes principle?

A Thermometer

B Barometer

C Hygrometer

D Hydrometer

**Answer: D**

**Question 45**

Bile secreted by liver helps in -

- A Respiration
- B Digestion
- C Purification of blood
- D Excretion

Answer: B

**Question 46**

**Dendrons are parts of-**

- A Cartilage
- B Neuron
- C Nephron
- D Muscle Cell

Answer: B

**Question 47**

**P and Q together can do a job in 7 days. P is twice as efficient as Q. In how many days can P alone do the job?**

- A 12 days
- B 15 days
- C 10.5 days
- D 21 days

Answer: C

**Explanation:**

P and Q can do the work in 7 days

efficiency of P : efficiency of Q = 2 : 1

total work =  $7 * 3 = 21$

P can alone do the work in  $\frac{21}{2} = 10.5$  days

**Question 48**

**In this question, a statement is given followed by two conclusions. Choose the conclusion(s) which best fit(s) logically.**

**Statement:**

**Video-libraries are flourishing very much these days.**

**Conclusions:**

**I. People in general have got a video craze.**

**II. It is much cheaper to see as many movies as one likes on videos rather than going to the cinema hall.**

- A Neither conclusions I nor II follows
- B Only conclusion II follows
- C Only conclusion I follows

D Either conclusion I or II follows

Answer: A

#### Question 49

When will the tenure of Chief Justice of India Ranjan Gogoi end?

A 17 November 2019

B 15 October 2019

C 12 August 2019

D 17 December 2019

Answer: A

#### Question 50

Who among the following was the President of the Constituent Assembly?

A Jawaharlal Nehru

B B.R. Ambedkar

C Rajendra Prasad

D C. Rajagopalachari

Answer: C

#### Question 51

A sum of money amounts to Rs.9800 in 5 years and Rs.12005 in 8 years at the same rate of simple interest. What is the rate of interest?

A 5%

B 15%

C 12%

D 8%

Answer: C

#### Explanation:

SI for 3 years = Rs.(12005 - 9800) = Rs. 2205

SI for 5 years =  $\frac{2205}{3} \times 5$  = Rs. 3675

principal = Rs.(9800-3675) = Rs.6125

hence,rate =  $\frac{100 \times 3675}{6125 \times 5} \% = 12\%$

#### Question 52

Mohan started from point A and proceeded 7 km straight towards east, then he turned left and proceeded straight for a distance of 10 km. He then turned left again and proceeded straight for a distance of 6 km, and then turned left again and proceeded straight for another 10 km. How far and in which direction is he from the point A?



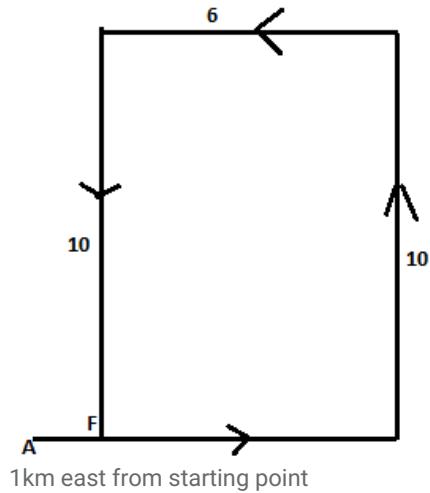
- A 1 km, west
- B 1 km, south
- C 1 km, east
- D 2 km, north

**Answer: C**

**Explanation:**

A - starting point

F - final point



**Question 53**

Which of the following is same as 14 m/s?

- A 50.4 km/h
- B 70 km/h
- C 28 km/h
- D 46.6 km/h

**Answer: A**

**Explanation:**

$$m/s = 18/5 \text{ km/hr}$$

$$14 \text{ m/s} = 14 \times \frac{18}{5}$$

$$= 50.4 \text{ km/hr}$$

**Question 54**

Two varieties of rice each costing Rs.50 per kg and Rs.60 per kg respectively are mixed in some ratio, and the mixed rice is sold at Rs.70 per kg, so as to get 20% profit. What is the ratio in which the two varieties are mixed?

- A 3 : 5
- B 1 : 5
- C 2 : 5

D 2:7

Answer: B

Question 55

In this question, two statements are given followed by two conclusions. Choose the conclusion(s) which best fit(s) logically.

Statements:

- 1) All colours are pants.
- 2) All pants are brushes.

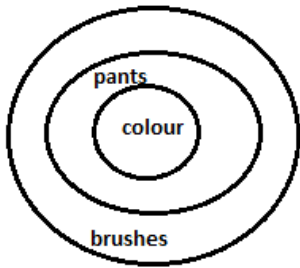
Conclusions:

- I. Some brushes are pants.
- II. Some brushes are colours.

- A Only conclusion II follows
- B Both conclusions I and II follow
- C Neither conclusion I nor II follows
- D Only conclusion I follows
- E None follows

Answer: B

Explanation:



Question 56

Simplify:  $\frac{\sin \theta - 2 \sin^3 \theta}{2 \cos^3 \theta - \cos \theta}$

- A  $2 \sin \theta \cos \theta$
- B  $\sin \theta - \cos \theta$
- C  $\sin \theta + \cos \theta$
- D  $\tan \theta$

Answer: D

Question 57

Choose the alternative that best replaces the question mark(?) in the given figure.

4	3	1
3	6	8
2	5	7
23	40	?

- A 58
- B 47
- C 51
- D 54

Answer: A

**Explanation:**

1st column,  $4^2 + 3^2 - 2 = 23$

2nd column,  $3^2 + 6^2 - 5 = 40$

3rd column =  $1^2 + 8^2 - 7 = 58$

Question 58

Which of the following can be beaten into thin sheets?

- A Oxygen
- B Sulphur
- C Iron
- D Nitrogen

Answer: C

Question 59

The atomic number is denoted by the alphabet-

- A Z
- B A
- C X
- D N

Answer: A

Question 60

Which of the following Chief Ministers unveiled the Yuvashree Arpan Scheme in 2019?

- A Arvind Kejriwal
- B Yogi Adityanath
- C Nitish Kumar
- D Mamata Banerjee

Answer: D

**Question 61**

Complete the series.

DMP, FLN, HKL, JJJ, (...)

- A MIH
- B III
- C LIH
- D MII

Answer: C

**Question 62**

Evaluate:  $\frac{1}{1 + \frac{1}{1 + \frac{1}{\{1 - \frac{1}{2}\}}}}$

- A 3/4
- B 3/8
- C 4/3
- D 3/2

Answer: A

**Explanation:**

$$\frac{1}{1 + \frac{1}{1 + \frac{1}{\{1 - \frac{1}{2}\}}}}$$

$$= \frac{1}{1 + \frac{1}{1 + 2}}$$

$$= \frac{1}{1 + \frac{1}{3}}$$

$$= \frac{1}{\frac{4}{3}}$$

$$= \frac{3}{4}$$

**Question 63**

EKS Kosmos 2510 is the first satellite having early warning system launched by-

- A Japan
- B Russia
- C India
- D USA

**Answer: B**

**Question 64**

**Age of A is twice that of B. Sum of their present ages is 60. What will be the sum of their ages 5 years hence?**

- A 70
- B 80
- C 65
- D 75

**Answer: A**

**Explanation:**

$$A = 2B$$

$$A+B = 60$$

$$2B + B = 60$$

$$3B = 60$$

$$B = 20$$

$$A=40$$

$$\text{SUM OF AGES AFTER 5 YEARS} = 20 + 40 + 5 + 5 = 70$$

**Question 65**

**An article marked at Rs.80 is sold for Rs.68. What is the rate of discount?**

- A 18%
- B 12%
- C 16%
- D 15%

**Answer: D**

**Explanation:**

$$\text{MP} = \text{Rs.}80$$

$$\text{SP} = \text{Rs.}68$$

$$\text{Discount} = \text{MP} - \text{SP} = 80 - 68 = \text{Rs.}12$$

$$\text{rate of discount} = \frac{\text{discount}}{\text{MP}} \times 100$$

$$= \frac{12}{80} \times 100$$

$$= 15\%$$

**Question 66**

**Which of the following is a desert tree?**

- A Palm
- B Coconut

C Banyan

D Betel nut

Answer: A

**Question 67**

The base of a right pyramid is a square of side 24 cm and height of the pyramid is 16 cm. What is its lateral surface area?

A \$\$ 960 \text{ cm}^2 \$\$

B \$\$ 890 \text{ cm}^2 \$\$

C \$\$ 1020 \text{ cm}^2 \$\$

D \$\$ 1024 \text{ cm}^2 \$\$

Answer: A

**Question 68**

Find the area of a parallelogram with base 48 cm and height 32 cm.

A \$\$ 1536 \text{ cm}^2 \$\$

B \$\$ 1426 \text{ cm}^2 \$\$

C \$\$ 1444 \text{ cm}^2 \$\$

D \$\$ 1546 \text{ cm}^2 \$\$

Answer: A

**Question 69**

P can complete a work in 6 days. Working with the help of Q, the job is completed in 7 days. If P starts the work and P and Q work on alternate days, in how many days can Q alone complete the job?

A 10

B 9

C 8

D 12

Answer: B

**Question 70**

A circular wire of radius 7cm is bent to form a rectangle whose sides are in the ratio 4 : 7 what is the area of the rectangle so formed?

A \$\$ 60 \text{ cm}^2 \$\$

B \$\$ 112 \text{ cm}^2 \$\$

C \$\$ 56 \text{ cm}^2 \$\$

D \$\$ 84 \text{ cm}^2 \$\$

Answer: B

**Explanation:**

radius = 7cm

circumference of circle = perimeter of rectangle =  $2\pi r = 2 \times \frac{22}{7} \times 7 = 44\text{cm}$

sides of rectangle are in the ratio = l : b = 4 : 7

let length = 4x

breadth = 7x

perimeter =  $2(l+b) = 44$

$$2(4x+7x)=44$$

$$22x=44$$

$$x = 2$$

length =  $4x = 4 \times 2 = 8$

breadth =  $7x = 7 \times 2 = 14$

area of reactangle =  $l \times b = 8 \times 14 = 112 \text{ cm}^2$

**Question 71**

When the digits of a two-digit number are reversed, the value of the number is increased by 45. The sum of the digits is 11. What is the original number?

- A 65
- B 38
- C 24
- D 83

**Answer: B**

**Question 72**

Find the missing number in the following series.

11, 30, 22, 41, 33, (...), 44, 63

- A 52
- B 56
- C 48
- D 41

**Answer: A**

**Explanation:**

there is 2 different series

11,22,33,44 and 30,41,x,63

both pattern follows addition of 11 to next number in the series

$$41 + 11 = 52$$

**Question 73**

Read the following information carefully and answer the question given below.

Eight captains of different volleyball teams—Iran, Germany, Romania, Serbia, Tunisia, China, Brazil and Cuba are sitting around a circular table and are facing the centre, but not necessarily in the same order. Romanian captain sits third to the left of the Tunisian captain. Only two people sit between the Iran captain and Brazil captain. Neither the Iran captain nor Brazil captain is an immediate neighbour of the Romanian captain. The captain of Cuba sits second to the right of the China captain. China captain is not an immediate neighbour of the Romanian captain. The Iran captain sits third to the left of the Romanian captain. Captains of Serbia and Germany are not immediate neighbours. Serbia captain sits third to the left of the China captain.

How many persons are sitting between the captain of China and Romania in clockwise direction?

- A Two
- B Four
- C Five
- D Three

Answer: D

**Question 74**

To row a certain distance upstream and downstream takes  $t_1$  hours and  $t_2$  hours respectively and speed of stream is 'y' km/h. Find speed in still water.

- A  $\left(\frac{t_1^2 - t_2^2}{2y}\right)$  km/h
- B  $\left[\left(\frac{t_1 - t_2}{t_1 + t_2}\right) y\right]$  km/h
- C  $\left[\frac{(t_1 + t_2) 2y}{(t_1 - t_2)}\right]$  km/h
- D  $\left[\frac{(t_1 + t_2)}{(t_1 - t_2)}\right] y$  km/h

Answer: D

**Question 75**

What fraction of an hour is 48 seconds?

- A  $\frac{1}{75}$
- B  $\frac{2}{73}$
- C  $\frac{4}{300}$
- D  $\frac{4}{75}$

Answer: A

**Explanation:**

total number of seconds in an hour = 3600 seconds

acc to the ques,  $\frac{48}{3600} = \frac{1}{75}$

**Question 76**

The junction between two neurons is called-



- A Node of ranvier
- B Synapse
- C Gap junction
- D Motor end plate

Answer: B

#### Question 77

Find the greatest number of four digits exactly divisible by 15, 25, 30 and 45.

- A 9000
- B 9600
- C 9900
- D 9400

Answer: C

#### Question 78

After which Prime Minister was a sports award named in India?

- A P.V. Narasimha Rao
- B Rajiv Gandhi
- C Charan Singh
- D V.P. Singh

Answer: B

#### Question 79

Which of the following statements is FALSE?

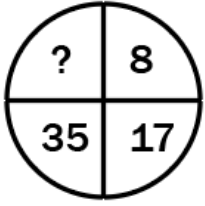
1. The object is always placed to the left of the spherical mirror.
2. All distances parallel to principal axis are measured from pole of the mirror.
3. All distances measured to the right of the origin are taken as negative.
4. Distances measured perpendicular to and above the principal axis are taken as positive.

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

Answer: D

Question 80

Choose the alternative that best replaces the question mark(?) in the given figure.



- A 71
- B 64
- C 74
- D 68

Answer: A

**Explanation:**

$$8 \times 2 + 1 = 17$$

$$17 \times 2 + 1 = 35$$

$$35 \times 2 + 1 = 71$$

Question 81

In this question, a statement is given followed by four conclusions. Choose the conclusion(s) which best fit(s) logically.

**Statement:**

In the university examination, most of the candidates take exam in Hindi medium.

**Conclusions:**

- I. Some candidates take exam in Hindi.
- II. Most of the candidates appeared for the examination are from Hindi medium.
- III. In this examination no candidate writes answers in medium other than Hindi.
- IV. All the candidates who appear in this examination write answers in Hindi.

- A Only conclusion IV follows
- B Both conclusions I and II follows
- C Only conclusion II follows
- D Only conclusion I follows

Answer: C

Question 82

Find the ODD one out from the given options.

- A 16
- B 8
- C 25
- D 9

Answer: B

**Explanation:**

all others are square of numbers except 8

**Question 83**

What is the name given to the phenomenon of throwing light in various random directions ?

- A Reflection of light
- B Scattering of light
- C Refraction of light
- D Dispersion of light

**Answer: B**

**Question 84**

Which of the following is a folk dance of Rajasthan?

- A Bhangra
- B Garba
- C Nati
- D Ghoomar

**Answer: D**

**Question 85**

Complete the series.

YA, PP, IP, DL, (...)

- A AE
- B TN
- C YS
- D GE

**Answer: A**

**Question 86**

Find the smallest fraction.

- A  $\frac{31}{40}$
- B  $\frac{13}{16}$
- C  $\frac{7}{8}$
- D  $\frac{63}{80}$

**Answer: A**

**Explanation:**

take lcm of 40, 16, 8, 80 = 80

convert denominator of every fraction to 80

$$\frac{31}{40} = \frac{62}{80}$$

$$\frac{13}{16} = \frac{65}{80}$$

$$\frac{7}{8} = \frac{70}{80}$$

$$\frac{63}{80} = \frac{63}{80}$$

so largest fraction is  $\frac{70}{80}$  or  $\frac{7}{8}$

**Question 87**

Read the following information carefully and answer the question given below.

Eight students—S, T, U, V, W, X, Y and Z are sitting around a circle facing the center. S is second to the right of Y who is third to the right of T. V is second to the left of X who sits between Y and S. U is not a neighbour of T or W.

Who is to the immediate left of U?

A S

B W

C Z

D T

Answer: A

**Question 88**

Elements of the second period are known as-

A Typical elements

B Bridge elements

C Transition elements

D Earth metals

Answer: B

**Question 89**

Which number will best complete the relationship given below?

25 : 9 :: 16 : ?

A 11

B 6

C 8

D 4

Answer: D

**Explanation:**

25 : 9 :: 16 : ?

$$5^2 : 3^2 :: 4^2 : 2^2$$

in the first group there is a difference of 2 i.e. 5-3, similarly in second group there will be a difference of 2 i.e. 4-2

#### Question 90

When copper oxide is heated with hydrogen, copper metal and water are formed. What happens to the copper oxide in this reaction?

- A Both reduced and oxidised
- B Decomposed
- C Reduced
- D Oxidised

Answer: C

#### Question 91

After spending 30% of his salary, a man had Rs.2100 left. From the remaining amount, he spent 15% on minor repairs. What are his savings?

- A Rs.1200
- B Rs.1600
- C Rs.1785
- D Rs.1685

Answer: C

#### Question 92

On which date is International Day for Biodiversity observed?

- A 22 May
- B 5 June
- C 15 May
- D 20 May

Answer: A

#### Question 93

Find the value of  $\tan^2 60^\circ - 2 \tan^2 45^\circ - \cot^2 30^\circ + 2 \sin^2 30^\circ + \frac{3}{4} \operatorname{cosec}^2 45^\circ$

- A 2
- B  $-\frac{\sqrt{3}}{2}$
- C -1
- D 0

Answer: D

**Question 94**

In a two-digit number, the digit in the unit's place is four times the digit in ten's place and sum of the digits is equal to 10. Find the number.

- A 82
- B 41
- C 28
- D 14

**Answer: C**

**Question 95**

Who among the following has scored the most runs in Ranji Trophy?

- A Wasim Jaffer
- B Mithun Manhas
- C Amol Anil Muzumdar
- D Devendra Bundela

**Answer: A**

**Question 96**

Where is 'Keibul Lamjao', the only floating National Park in the world, located?

- A Manipur
- B Meghalaya
- C Nagaland
- D Mizoram

**Answer: A**

**Question 97**

The amount of the solute present in the saturated solution at a particular temperature is called its-

- A Solubility
- B Visibility
- C Viscosity
- D Stability

**Answer: A**

**Question 98**

**Adding electrons to an atom will result in-**

- A Neutron
- B Anion
- C Cation
- D Molecule

**Answer: B**

**Question 99**

**Find the ODD one out from the given options.**

- A Stale : Fresh
- B Slow : Sluggish
- C Truth : Lie
- D Kind : Cruel

**Answer: B**

**Explanation:**

except option B ,all other are opposite of each other in the group

**Question 100**

**Which of the following is NOT an insectivorous plant?**

- A Venus fly-trap
- B Prothallus
- C Pitcher-plant
- D Sundew

**Answer: B**

**RRB JE**  
**31st May 2019**  
**Shift-2**

**Instructions**

For the following questions answer them individually

**Question 1**

**Which of the following is the largest port in India?**

- A Kochi
- B Mumbai
- C Paradip
- D Marmagao

**Answer: B**

**Question 2**

**In which of the following forms of treatment there is no medicine ?**

- A Allopathy
- B Ayurveda
- C Placebo
- D Homeopathy

**Answer: C**

**Question 3**

**What is the chemical generally used for controlling algae?**

- A Bleaching powder
- B Alum
- C Lime
- D Copper sulphate

**Answer: D**

**Question 4**

**An article when sold at a gain of 5% yields Rs.15 more than when sold at a loss of 5%. Find its cost price.**

- A Rs.200
- B Rs.150
- C Rs.250
- D Rs.300

**Answer: B**



**Question 5**

In Mendeleev's periodic table, gaps were left for the elements to be discovered later. Which of the following elements found a place in the periodic table later?

- A Germanium
- B Chlorine
- C Oxygen
- D Silicon

**Answer: A**

**Question 6**

A train crosses a pole in 20 seconds, and it crosses a cyclist coming in opposite direction at 5km/h in 18 seconds. What is the speed of the train ?

- A 65 km/h
- B 45 km/h
- C 40 km/h
- D 62 km/h

**Answer: B**

**Question 7**

Which of the following Indian states has the largest forest coverage in terms of area ?

- A Odisha
- B Madhya Pradesh
- C Arunachal Pradesh
- D Karnataka

**Answer: B**

**Question 8**

'World Environment Day 2018' was hosted by-

- A India
- B China
- C Bhutan
- D Sri Lanka

**Answer: A**

**Question 9**

If  $\sqrt{(x-1) + (y+2)} = 7$ , then find the values of x and y.

- A 12, 16
- B 8, 5
- C 15, 12
- D 50, 47

**Answer: B**

**Question 10**

Phenolphthalein becomes pink in-

- A Water
- B Salt Solutions
- C Acids
- D Alkalis

**Answer: D**

**Question 11**

In one hour, a boat goes 11 km along the stream or 5 km against the stream. Find the speed of the boat in still water.

- A 5 km/h
- B 6 km/h
- C 8 km/h
- D 3 km/h

**Answer: C**

**Question 12**

Which of the following substances is found in human blood ?

- A Carbon
- B Oxygen
- C Haemoglobin
- D Hydrogen

**Answer: C**

**Question 13**

From the points 'x' m and 'y' m away from the foot of a tree on either side of it the angles of elevation of the tree-top are  $\alpha, \beta$  respectively. If  $\alpha + \beta = 90^\circ$ , then find the height of the tree.

A  $x \cos \alpha + y \cos \beta$

B  $\sqrt{xy}$

C  $\frac{(x+y)^2}{2}$

D  $(x - y)^2$

**Answer: B**

**Question 14**

Two vehicles start from places P and Q towards Q and P respectively at the same time. After crossing each other, they complete their journey in  $7/2$  hours and  $18/7$  hours respectively. If the second vehicle moves at a speed of 70 km/h, then find the speed of the first vehicle.

A 54 km/h

B 48.6 km/h

C 72 km/h

D 60 km/h

**Answer: D**

**Question 15**

A balanced chemical equation is in accordance with-

A Law of multiple proportion

B Law of gaseous volumes

C Law of conservation of mass

D Avogadro's law

**Answer: C**

**Question 16**

On which organ of the human body is angioplasty performed ?

A Kidney

B Heart

C Stomach

D Lungs

**Answer: B**

**Question 17**

In Rutherford experiment, alpha particles were made to fall on a thin-

- A Silver plate
- B Aluminium foil
- C Gold foil
- D Silver foil

**Answer: C**

**Question 18**

What is the distance between two consecutive compressions or two consecutive rarefactions called?

- A Wavelength
- B Frequency
- C Wave velocity
- D Amplitude

**Answer: A**

**Question 19**

In a certain code, 'ABC DEF' is written as 'ZYX WVU'. How would 'FAIL' be written in that code?

- A URZO
- B UZWO
- C UZRO
- D UZOR

**Answer: C**

**Question 20**

The Simple Interest for first 2 years is 6%, next 2 years is 7% and for any number of years exceeding 4 years is 8%. Find the total interest on a principal 'P' at the end of 7 years.

- A P
- B 2P
- C  $3P/2$
- D  $P/2$

**Answer: D**

**Question 21**

In this question, a statement is given followed by two conclusions. Choose the conclusion(s) which best fit(s) logically.

**Statement:**

The best evidence of India's glorious past is the growing popularity of Ayurvedic medicines in the West.

**Conclusions:**

I. Ayurvedic medicines are not popular in India.

II. Allopathic medicines are more popular in India.

- A Either conclusion I or II follows
- B Neither conclusion I nor II follows
- C Only conclusion I follows
- D Only conclusion II follows

**Answer: B**

**Question 22**

How many chromosomes are there in a cell of the human body?

- A 45
- B 46
- C 44
- D 43

**Answer: B**

**Question 23**

To obtain a virtual enlarged erect image on the same side of a convex lens after refraction, where should the object be placed?

- A At infinity
- B Between focus  $F_1$  and optic centre  $O$
- C Between  $F_1$  and  $2F_1$
- D At  $2F_1$

**Answer: B**

**Question 24**

The first letter of a chemical symbol is always written in-

- A Capital letter
- B Small letter
- C Bold
- D Italics

**Answer: A**

**Question 25**

**What is the purpose of recently launched 'e-Sahaj' portal?**

- A E-filing of Income Tax returns
- B Easy approval to service units
- C Easy approval to manufacturing units
- D Security clearance to businesses

**Answer: D**

**Question 26**

**Find the HCF of two consecutive integers.**

- A Product of the integers
- B 1
- C 0
- D Sum of the Integers

**Answer: B**

**Question 27**

**Complete the Series.**

**9, 34, 57, 77, 93, (...)**

- A 98
- B 92
- C 104
- D 87

**Answer: C**

**Question 28**

**With which sport is Dhanraj Pillai associated?**

- A Cricket
- B Polo
- C Hockey
- D Football

**Answer: C**

**Question 29**

**Evaluate:**  $0.6\overline{23}$

- A  $\frac{617}{990}$
- B  $\frac{623}{999}$
- C  $\frac{23}{6990}$
- D  $\frac{23}{6999}$

**Answer:** A

**Question 30**

One-fourth of the goods is sold at a loss of 20%. If there has to be an overall profit of 10%, at what gain percent should the remaining stock be sold, if the cost price of the entire goods is Rs.1600?

- A 18%
- B 25%
- C 20%
- D 15%

**Answer:** C

**Question 31**

A certain sum of money amounts to Rs.2420 in two years and Rs.2662 in three years at some rate of Compound Interest, compounded annually. Find the sum and the rate of interest per annum.

- A Rs.1000 and 12%
- B Rs.2500 and 5%
- C Rs.2250 and 15%
- D Rs.2000 and 10%

**Answer:** D

**Question 32**

**Zoology is the study of-**

- A Animals
- B Viruses
- C Energy
- D Fruits

**Answer: A**

**Question 33**

**Which vitamin promotes the absorbing of calcium in the body?**

- A B6
- B D
- C B
- D A

**Answer: B**

**Question 34**

**P is 35 m north west to Q, and R is 35 m north east to Q. What is the direction of R from P?**

- A North
- B South
- C East
- D West

**Answer: C**

**Question 35**

**Which of these will have the least area ?**

- (1) A regular hexagon of side 1 unit.
- (2) A circle of radius 1 unit.
- (3) A square of side  $24\sqrt{12}$  units.

- A A square of side  $24\sqrt{12}$  units.
- B Cannot be determined
- C A regular hexagon of side 1 unit.
- D A circle of radius 1 unit.

**Answer: C**

**Question 36**

**Which of the following is NOT an allotrope of carbon?**

- A Fullerene
- B Carborundum
- C Diamond
- D Graphite



**Answer: B**

**Question 37**

The ..... missile is an Indian third generation "fire-and-forget" anti-tank guided missile.

- A Shaurya
- B Prithvi
- C Nag
- D Barak 8

**Answer: C**

**Question 38**

Which number will best complete the relationship given below?

62 : 30 :: 84 : ?

- A 57
- B 50
- C 41
- D 53

**Answer: C**

**Question 39**

A clock is found to be slow by 5 minutes at 8 AM on Sunday. It started gaining time and was found to be 5 minutes fast at 8 PM on Monday. When was it correct?

- A 8 AM, Monday
- B 2 AM, Monday
- C 6 AM, Monday
- D 8 PM, Monday

**Answer: B**

**Question 40**

Simplify:  $0.000088 \div 0.11$

- A 0.0008
- B 0.08
- C 0.00008
- D 0.008

**Answer: A**

**Question 41**

Who among the following is directly responsible to the Parliament for all matters concerning the Defence Services of India ?

- A Prime Minister
- B Cabinet Committee on Political Affairs
- C Defence Minister
- D President

**Answer: C**

**Question 42**

Complete the series.

18, 9, 9, 13.5, 27, (...)

- A 69.1
- B 65.2
- C 71.2
- D 67.5

**Answer: D**

**Question 43**

Raj and Roy are standing at point B. They start walking in opposite directions. Raj walked 3 km and Roy walked 4 km. Then, Raj turned right and walked 4 km and Roy turned left and walked 3 km. How far is each from the starting point?

- A 4.5 km, 5 km
- B 8 km, 6 km
- C 5 km, 5 km
- D 6 km, 4 km

**Answer: C**

**Question 44**

Read the following information carefully and answer the question given below.

Five friends Abi, Chithra, Rekha, Priya and Divya are sitting on a bench facing north. Abi is sitting next to Chithra. Priya is sitting next to Rekha. Priya is not sitting with Divya. Divya is on the left end of the bench. Rekha is on the second position from the right. Abi sits to the right of Chithra. Abi and Rekha are sitting together.

What is the position of Chithra ?

- A Extreme left
- B Second from the right

C Second from the left

D Extreme right

**Answer: C**

**Question 45**

**Which of the following countries will host the 2020 men's T20 World Cup ?**

A Australia

B South Africa

C England

D India

**Answer: A**

**Question 46**

**What is the chemical formula of caustic potash ?**

A  $NH_4OH$

B KOH

C NaOH

D  $Ca(OH)_2$

**Answer: B**

**Question 47**

**The chief ore of copper is-**

A Dolomite

B Bauxite

C Chalcopyrite

D Siderite

**Answer: C**

**Question 48**

**What is the relation between the speed of sound through sea water  $v$ , the time interval between transmission and reception of ultrasound signal  $t$  and the total distance travelled by the ultrasound  $2d$ , in a SONAR ?**

A  $2d = v / t$

B  $2d = v + t$

C  $2d = v - t$

D  $2d = v \times t$

**Answer: D**

**Question 49**

**Simplify:**  $7 \div [(11 - 5) \div (5 - 1) \div (4 + 6 \div 20)]$

**A** 136/140

**B** 117/17

**C** 140/129

**D** 136/17

**Answer: C**

**Question 50**

**Ratio of principal to the amount got after a certain time at a certain rate of Simple Interest is 4 : 5. After three more years, the ratio becomes 5 : 7. What is the rate of interest?**

**A** 4%

**B** 5%

**C** 8%

**D** 4.5%

**Answer: B**

**Question 51**

**Complete the series.**

**AC, PD, PF, LJ, (...)**

**A** GA

**B** ER

**C** SP

**D** AV

**Answer: B**

**Question 52**

**What are called as prunes?**

**A** Dried strawberries

**B** Dried apples

**C** Dried plums

**D** Dried apricots

**Answer: C**

**Question 53**

Which of the following games were previously called the 'British Empire Games'?

- A Pan American Games
- B Commonwealth Games
- C Asian Games
- D Olympic Games

**Answer: B**

**Question 54**

Husk from wheat grains is separated from heavier seeds of grain by the process of-

- A Winnowing
- B Sublimation
- C Coagulation
- D Filtration

**Answer: A**

**Question 55**

In the following question, which one of the four interchanges in signs and numbers would make the given equation correct ?

$$15 + 4 - 2 \times 7 = 27$$

- A  $\times$  and  $-$ ; 4 and 15
- B  $-$  and  $+$ ; 2 and 15
- C  $+$  and  $-$ ; 2 and 4
- D  $\times$  and  $+$ ; 7 and 4

**Answer: A**

**Question 56**

If 20 men can build a wall 56 m long in 6 days, then what length of wall can be built by 35 men in 3 days ?

- A 36 m
- B 52 m
- C 60 m
- D 49 m

**Answer: D**

**Question 57**

A number when divided by 15 leaves the remainder 12. Another number when divided by 5 leaves the remainder 2. What is the remainder when their sum is divided by 5 ?

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

**Answer: D**

**Question 58**

A small cone is cut off at the top by a plane parallel to the base from a cone of height 30 cm. If the volume of the small cone is  $\frac{1}{27}$  of the given cone, find at what height above the base is the section made?

- A 10 cm
- B 14 cm
- C 20 cm
- D 8 cm

**Answer: C**

**Question 59**

Which of the following represents the functional group 'alcohols'?

- A CHO
- B OH
- C CO
- D COOH

**Answer: B**

**Question 60**

A dog is running towards its owner who is standing at the east direction. From which direction did the dog start ?

- A West
- B East
- C North
- D South

**Answer: A**

Question 61

If the number 150 is increased by 30%, then what is the increased value ?

- A 45
- B 180
- C 145
- D 195

Answer: D

Question 62

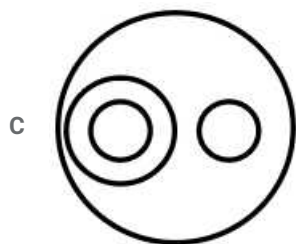
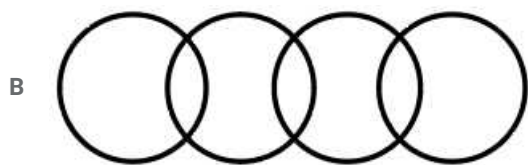
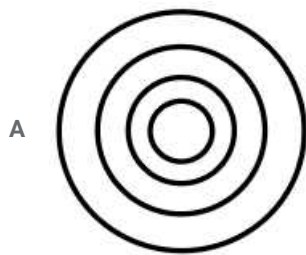
Find the least number to be added to the least four digit number so that the sum is divisible by 3, 4, 5 and 6.

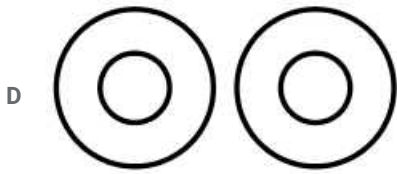
- A 33
- B 40
- C 20
- D 10

Answer: C

Question 63

Choose the figure that best represents the relationship among the classes given below.  
Educated, Uneducated, Doctors, People





Answer: C

**Question 64**

'Akshaya' is a project aims to improve public delivery of services by bringing the benefits of e- Governance and utility services in-

- A Madhya Pradesh
- B Andhra Pradesh
- C Kerala
- D Karnataka

Answer: C

**Question 65**

Which star in the sky does not seem to move at all ?

- A Ploe star
- B Corner star of Ursa Major
- C Sirius
- D Middle star of middle three stars of Orion

Answer: A

**Question 66**

Which of the following dance forms is NOT of Indian origin?

- A Samba
- B Bhangra
- C Odissi
- D Chhau

Answer: A

**Question 67**

Leela is 24 years older than herson. If the ratio of their ages is 23 : 11, then how old is Leela?

- A 46 years
- B 50 years
- C 69 years



D 34 years

Answer: A

**Question 68**

Find the ODD one out from the given options.

A 25

B 78

C 30

D 75

Answer: B

**Question 69**

What is the SI unit of amplitude?

A Hertz

B Metre

C Second

D Kilogram

Answer: B

**Question 70**

The resistance of a conductor is inversely proportional to its-

A Area of cross section

B Length

C Temperature

D All of the options

Answer: A

**Question 71**

Simplify :  $(28 \times 9 + 54 \times 3 + 12 \times 11) + (14^2 - (961 + 17))$

A 7

B 5

C 8

D 3

Answer: D

Question 72

Buoyant force's ..... depends on the density and volume of the fluid.

- A Energy
- B Direction
- C Magnitude
- D Power

Answer: C

Question 73

Choose the pair which shows the same relationship as in the pair given below.  
2 - 4 - 6 : 10 - 12 - 14

- A 18 - 20 - 22 : 26 - 28 - 30
- B 13 - 14 - 15 : 18 - 19 - 20
- C 31 - 33 - 35 : 37 - 39 - 41
- D 3 - 4 - 5 : 6 - 7 - 8

Answer: A

Question 74

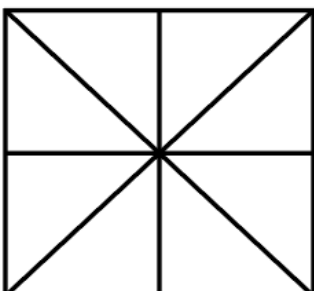
If  $\sin x = \frac{m}{\sqrt{1+m^2}}$  then find  $\tan x$

- A  $\sqrt{1+m^2}$
- B  $\frac{m^2-1}{m^2+1}$
- C m
- D  $\frac{m^2}{1+m^2}$

Answer: C

Question 75

How many squares are there in the given figure ?



- A 5
- B 16
- C 9
- D 10

Answer: A

#### Question 76

Complete the series.

UY, OP, II, ED,(...)

- A GG
- B EE
- C AA
- D SS

Answer: C

#### Question 77

Read the following information carefully and answer the question given below.

During a party, a game is being played. For the game, 9 people from A to I (mix of boys and girls) have to stand in a vertical row. Boys are wearing red t-shirts and girls are wearing pink t-shirts. The row starts at left and with a pink t-shirt. Boys and girls stand alternately in the row. Each position in the row can be occupied by one person only.

- i) A stands seven places before B.
- ii) Third pink t-shirt is C.
- iii) Second boy after C is D.
- iv) Fourth place in the row is occupied by E.
- v) F stands ahead of A.
- vi) G stands between C and A.
- vii) I is a girl.

Which of the following is a pair of boys ?

- A E and H
- B F and A
- C E and C
- D D and B

Answer: A

#### Question 78

If  $(20 + 8 \times 0.5)/(20 - x) = 12$ , then find the value of 'x'.

- A 14
- B 16

C 18

D 20

Answer: C

Question 79

The process of killing the pathogenic bacteria of water borne diseases to make it safe for hospital use is known as-

A Sterilization

B Debacterialisation

C Zeoliting

D Aeration

Answer: A

Question 80

Complete the series.

12, 17, 27, 57, (...)

A 168

B 179

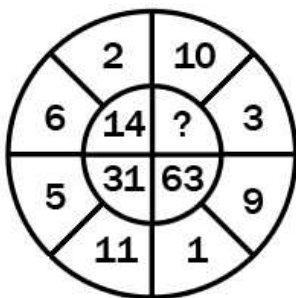
C 162

D 177

Answer: D

Question 81

Choose the alternative that best replaces the question mark(?) in the given figure.



A 51

B 21

C 46

D 39

Answer: C

**Question 82**

**What causes high tides and low tides in the sea ?**

- A Gravitational pull of the Earth
- B Gravitational pull of the Sun
- C Gravitational pull of the Moon
- D Gravitational pull of the Mars

**Answer: C**

**Question 83**

**If the word 'EXAMINATION' is coded as 89123416354, which word stands for 456354 ?**

- A STATION
- B NATION
- C NOTION
- D RATION

**Answer: C**

**Question 84**

**Solve for  $x = | -2x + 2 | - 3 = -3$**

- A  $x = 1$
- B  $x = -1$
- C  $x = 2$
- D  $x = 0$

**Answer: A**

**Question 85**

**Who has taken charge as the first Chief Justice of Telangana High Court in January 2019 ?**

- A Ramachandra Rao
- B Thottathil B. Radhakrishnan
- C Dr. Shameem Akther
- D R. Subhash Reddy

**Answer: B**

**Question 86**

What is the radius of a cylinder whose volume is  $3850\text{cm}^3$  and height 25 cm ?

Latek

- A 7 cm
- B 14 cm
- C 3.5 cm
- D 10.5 cm

Answer: A

**Question 87**

P takes 50% more time than Q. If they work together, the work will be done in 18 days. In how many days will Q alone complete the work ?

- A 24 days
- B 30 days
- C 22 days
- D 25 days

Answer: B

**Question 88**

Complete the series.

32, 16, 48, 24, 72, (...)

- A 39
- B 28
- C 31
- D 36

Answer: D

**Question 89**

What is the force required to overcome friction at the instant an object starts moving from rest ?

- A Sliding friction
- B Rolling friction
- C Static friction
- D Contact friction

Answer: C

Question 90

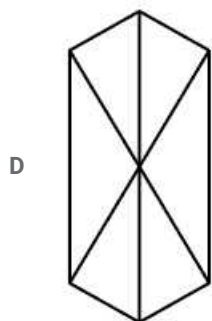
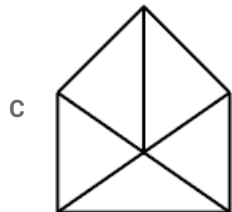
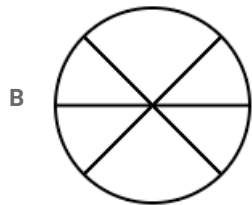
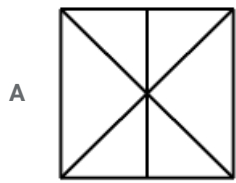
The ..... is divided into four chambers.

- A Kidney
- B Heart
- C Lung
- D Stomach

Answer: B

Question 91

Find the ODD one out from the given options.



Answer: C

Question 92

If a, b, c and d are in proportion, then find the mean proportional between  $(a^2 + c^2)$  and  $(b^2 + d^2)$ .

- A  $ab + cd$

B  $ab - cd$

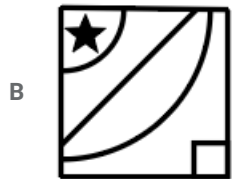
C  $ad + bc$

D  $ad - bc$

Answer: A

Question 93

Choose from the alternatives the figure that best completes the pattern given below.



Answer: C

Question 94

In which of these Olympic Games did India NOT win a gold medal in Hockey?

A Berlin, 1936

B Tokyo, 1964

C Rome, 1960

D Moscow, 1980



**Answer: C**

**Question 95**

**Who was the Governor of Jharkhand when the President rule was imposed in the year 2013?**

- A M.O. Hasan Farook Maricar
- B Syed Ahmed
- C Kateekal Sankaranarayanan
- D Draupadi Murmu

**Answer: B**

**Question 96**

**If 'nitco sco tingo' stands for 'softer than flower', 'tingo rho mst' stands for 'sweeter flower fragrance' and 'mst sco tmp' stands for 'sweeter than smile', what would 'fragrance' stand for ?**

- A tmp
- B sco
- C rho
- D mst

**Answer: C**

**Question 97**

**How will the light rays passing from a glass prism into air bend?**

- A As the normal
- B Almost at 90 degrees with normal
- C Towards the normal
- D Away from the normal

**Answer: D**

**Question 98**

**Find the ODD one out from the given options.**

- A Radish
- B Tomato
- C Carrot
- D Potato

**Answer: B**

**Question 99**

**Which of the following is the work of Kalidasa?**

- A Both Kiratarjuniya and Kumarasambhava
- B Malti Madhav
- C Kiratarjuniya
- D Kumarasambhava

**Answer: D**

**Question 100**

**If A and B are supplementary, then find the value of  $\cos A \cos B - \sin A \sin B$ .**

- A 2
- B -1
- C 0
- D 1

**Answer: B**