

# CUET-UG General Aptitude Test Sample Paper-2

Duration: 1 Hour

Maximum Marks: 250

## Instructions

- This paper contains a total of 50 Multiple Choice Questions.
- Each correct answer carries **+5 marks**.
- Each incorrect answer carries **-1 mark**.
- No negative marking for unattempted questions.

**Q1.** A student scores 60% marks and fails by 20 marks. Another student scores 75% marks and gets 25 marks more than the passing marks. What is the maximum marks of the examination?

- (A) 200
- (B) 250
- (C) 300
- (D) 350

**Q2.** A shopkeeper marks up his goods by 40% above the cost price. He then offers a discount of 20% on the marked price. If he makes a profit of ₹ 48, what is the cost price of the goods?

- (A) ₹ 350
- (B) ₹ 400
- (C) ₹ 450
- (D) ₹ 500

**Q3.** A sum of money becomes ₹ 13,380 after 2 years and ₹ 20,070 after 3 years when compounded annually. Find the rate of interest per annum.

- (A) 25%
- (B) 30%



(C) 40%

(D) 50%

**Q4.** The ratio of incomes of A and B is 3:2, and the ratio of their expenditures is 5:3. If each saves ₹ 2000, then what is the income of A?

(A) ₹ 8000

(B) ₹ 10000

(C) ₹ 12000

(D) ₹ 15000

**Q5.** A, B, and C can complete a piece of work in 10, 12, and 15 days respectively. They started the work together, but A left after 2 days. B left 3 days before the completion of the work. In how many days was the work completed?

(A) 7 days

(B) 8 days

(C) 9 days

(D) 10 days

**Q6.** A train covers a certain distance at a speed of 60 km/hr in 8 hours. To cover the same distance in 5 hours, what should be its speed?

(A) 80 km/hr

(B) 90 km/hr

(C) 96 km/hr

(D) 100 km/hr

**Q7.** The average age of 30 students and a teacher is 15 years. If the teacher's age is excluded, the average age of the students becomes 14 years. What is the teacher's age?

(A) 40 years



- (B) 42 years
- (C) 45 years
- (D) 48 years

**Q8.** A merchant sells two articles. The selling price of each article is ₹ 1955. He earns a profit of 15% on one article and suffers a loss of 15% on the other. What is his overall profit or loss percentage?

- (A) 2.25% loss
- (B) 2.25% profit
- (C) 4.5% loss
- (D) No profit, no loss

**Q9.** 2 men and 3 boys can do a piece of work in 10 days, while 3 men and 2 boys can do the same work in 8 days. In how many days can 2 men and 1 boy do the work?

- (A) 12 days
- (B) 12 1/2 days
- (C) 13 days
- (D) 13 1/2 days

**Q10.** A mixture contains milk and water in the ratio 5:3. If 10 liters of water are added to the mixture, the ratio of milk and water becomes 5:4. What is the quantity of milk in the mixture?

- (A) 40 liters
- (B) 50 liters
- (C) 60 liters
- (D) 80 liters

**Q11.** What is the value of  $(999\frac{995}{999} \times 999)$ ?



- (A) 990809
- (B) 998996
- (C) 998999
- (D) 999999

**Q12.** The product of two numbers is 2028 and their HCF is 13. How many pairs of such numbers are possible?

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

**Q13.** Which of the following numbers is exactly divisible by 11?

- (A) 235641
- (B) 245642
- (C) 315624
- (D) 415624

**Q14.** If  $x = 3 + \sqrt{8}$ , then find the value of  $x^2 + \frac{1}{x^2}$ .

- (A) 34
- (B) 36
- (C) 38
- (D) 40

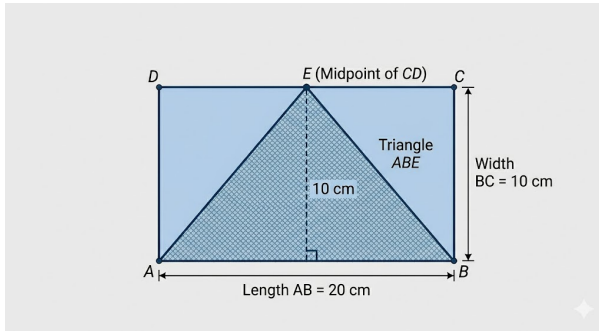
**Q15.** If  $3x + 2y = 12$  and  $xy = 6$ , find the value of  $9x^2 + 4y^2$ .

- (A) 36
- (B) 72
- (C) 144



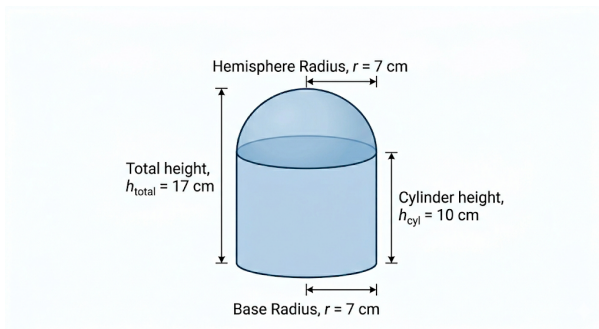
(D) 192

**Q16.** A rectangle  $ABCD$  is shown with length  $AB = 20$  cm and width  $BC = 10$  cm. A point  $E$  is marked exactly at the midpoint of the top side  $CD$ . A triangle  $ABE$  is formed by connecting the midpoint  $E$  to the bottom vertices  $A$  and  $B$ . Find the area of the triangle  $ABE$ .



- (A)  $50 \text{ cm}^2$
- (B)  $100 \text{ cm}^2$
- (C)  $150 \text{ cm}^2$
- (D)  $200 \text{ cm}^2$

**Q17.** A solid object is formed by a cylinder with a hemisphere attached perfectly to its top. Both the cylinder and the hemisphere have a radius of 7 cm. The height of the cylindrical part is 10 cm. Find the total surface area of this solid (excluding the base of the cylinder). [Take  $\pi = 22/7$ ]

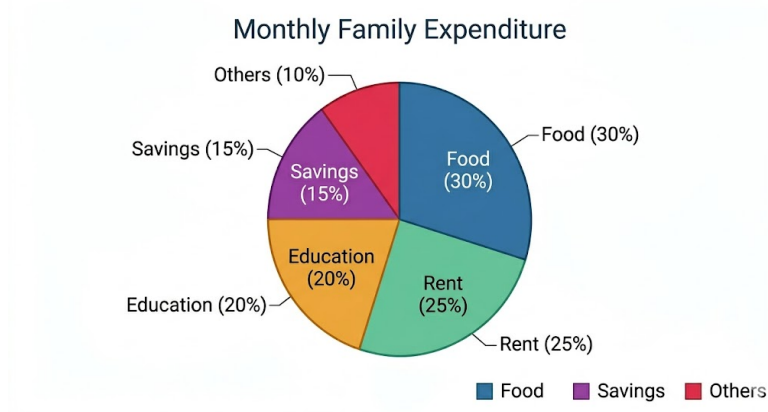


- (A)  $748 \text{ cm}^2$
- (B)  $440 \text{ cm}^2$
- (C)  $902 \text{ cm}^2$



(D)  $616 \text{ cm}^2$

- Q18.** A pie chart represents the monthly expenditure of a family. The sectors are: Food (30%), Rent (25%), Education (20%), Savings (15%), and Others (10%). If the total monthly income of the family is ₹ 50,000, what is the difference between the amount spent on Rent and the amount saved?



- (A) ₹ 2,500  
(B) ₹ 5,000  
(C) ₹ 7,500  
(D) ₹ 10,000
- Q19.** The ratio of the volumes of two cones is 2:3 and the ratio of the radii of their bases is 1:2. Find the ratio of their heights.
- (A) 8:3  
(B) 3:8  
(C) 4:3  
(D) 3:4
- Q20.** If 'APPLE' is coded as 'BQQMF', how is 'MANGO' coded?
- (A) NBNHP  
(B) NBOHP  
(C) NCOHP



(D) NBNGP

**Q21.** Pointing to a photograph, a man said, "I have no brother or sister, but that man's father is my father's son." Whose photograph was it?

(A) His own

(B) His father's

(C) His son's

(D) His nephew's

**Q22.** A man walks 10 km North, then 6 km East, then 2 km South. How far and in which direction is he from his starting point?

(A) 10 km, North-East

(B) 10 km, North-West

(C) 8 km, North-East

(D) 8 km, South-East

**Q23.** Find the next term in the series: 3, 7, 15, 31, 63, ?

(A) 125

(B) 127

(C) 129

(D) 131

**Q24.** Complete the series: B, E, I, N, T, ?

(A) A

(B) Z

(C) Y

(D) X

**Q25.** If 'RAMAN' is coded as 12325 and 'DINESH' is coded as 675849, how will 'HAMAM' be coded?



- (A) 92323
- (B) 92325
- (C) 93232
- (D) 93235

**Q26.** A is the mother of B. C is the father of D. B is the sister of D. E is the mother of C. How is A related to E?

- (A) Daughter
- (B) Sister
- (C) Daughter-in-law
- (D) Sister-in-law

**Q27.** Starting from his house, Ravi walks 20m West, then turns left and walks 10m. He then turns right and walks 5m, then turns right and walks 10m. Finally, he turns left and walks 5m. In which direction is he from his house?

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

**Q28.** Statements: Some pens are pencils. All pencils are erasers. All erasers are books. Conclusions: I. Some pens are books. II. All pencils are books.

- (A) Only conclusion I follows
- (B) Only conclusion II follows
- (C) Both I and II follow
- (D) Neither I nor II follows

**Q29.** Which of the following diagrams best represents the relationship among "Animals, Mammals, Cows"?



- (A) Three distinct, non-overlapping circles.
- (B) A circle representing Cows completely enclosed within a circle representing Mammals, which is completely enclosed within a circle representing Animals.
- (C) A circle representing Animals completely enclosing a circle for Mammals, with a third circle for Cows overlapping with Mammals.
- (D) A circle representing Mammals completely enclosing a circle for Cows, with a third circle for Animals overlapping partially with Mammals.

**Q30.** Statements: All tables are chairs. Some chairs are benches. No bench is a desk.  
Conclusions: I. Some chairs are not desks. II. Some tables are benches.

- (A) Only conclusion I follows
- (B) Only conclusion II follows
- (C) Both I and II follow
- (D) Neither I nor II follows

**Q31.** In a row of students, Riya is 15th from the left and 12th from the right. How many students are there in the row?

- (A) 25
- (B) 26
- (C) 27
- (D) 28

**Q32.** Choose the correct mirror image of the word "DELIVER" if the mirror is placed to the right.

- (A) ЯEVIЯEЯ
- (B) REVILED
- (C) ERVILEЯ
- (D) ЯEVILED



- Q33.** Select the figure that will complete the given series. Figure 1: A square divided into 4 smaller squares, with the top-left square shaded. Figure 2: A square divided into 4 smaller squares, with the top-right square shaded. Figure 3: A square divided into 4 smaller squares, with the bottom-right square shaded. Figure 4: ?
- (A) A square divided into 4 smaller squares, with the bottom-left square shaded.
- (B) A square divided into 4 smaller squares, with the top-left square shaded again.
- (C) A square divided into 4 smaller squares, with the top-right and bottom-left squares shaded.
- (D) A square divided into 4 smaller squares, with all squares shaded.
- Q34.** Who was awarded the Nobel Peace Prize in 2023 for her fight against the oppression of women in Iran and her promotion of human rights and freedom for all?
- (A) Narges Mohammadi
- (B) Oleksandra Matviichuk
- (C) Ales Bialiatski
- (D) Maria Ressa
- Q35.** Which country will host the 2028 Summer Olympics?
- (A) Paris, France
- (B) Brisbane, Australia
- (C) Los Angeles, USA
- (D) Tokyo, Japan
- Q36.** Who is the current Governor of the Reserve Bank of India (RBI)?
- (A) Raghuram Rajan
- (B) Urjit Patel



- (C) Shaktikanta Das
- (D) D. Subbarao

**Q37.** The 18th G20 Summit in 2023 was held in which city?

- (A) Bali
- (B) New Delhi
- (C) Rome
- (D) Osaka

**Q38.** Which Indian film won the Oscar for Best Original Song in 2023?

- (A) RRR (Naatu Naatu)
- (B) The Elephant Whisperers
- (C) All That Breathes
- (D) Chhello Show

**Q39.** Who won the ICC Men's Cricket World Cup 2023?

- (A) India
- (B) Australia
- (C) England
- (D) New Zealand

**Q40.** Which country is set to host the COP29 climate summit in 2024?

- (A) UAE
- (B) Azerbaijan
- (C) Brazil
- (D) Egypt

**Q41.** Which article of the Indian Constitution grants the Right to Constitutional Remedies?



- (A) Article 32
- (B) Article 19
- (C) Article 21
- (D) Article 14

**Q42.** Who was the first Governor-General of independent India?

- (A) Lord William Bentinck
- (B) C. Rajagopalachari
- (C) Lord Mountbatten
- (D) Jawaharlal Nehru

**Q43.** The Hirakud Dam is built across which river?

- (A) Godavari
- (B) Mahanadi
- (C) Krishna
- (D) Kaveri

**Q44.** The 42nd Amendment Act (1976) added which of the following words to the Preamble of the Indian Constitution?

- (A) Sovereign, Democratic, Republic
- (B) Socialist, Secular, Integrity
- (C) Justice, Liberty, Equality
- (D) Fraternity, Unity, Dignity

**Q45.** Who founded the 'Indian National Army' (INA) in 1942 in Southeast Asia?

- (A) Subhas Chandra Bose
- (B) Rash Behari Bose
- (C) Mohan Singh



(D) Mahatma Gandhi

**Q46.** Deficiency of Vitamin D leads to which disease?

(A) Scurvy

(B) Rickets

(C) Night Blindness

(D) Beriberi

**Q47.** Which of the following is used to correct myopia (nearsightedness)?

(A) Convex lens

(B) Concave lens

(C) Cylindrical lens

(D) Bifocal lens

**Q48.** What is the chemical name for laughing gas?

(A) Nitric oxide

(B) Nitrous oxide

(C) Nitrogen dioxide

(D) Dinitrogen tetroxide

**Q49.** The Paris Agreement, a legally binding international treaty on climate change, was adopted in which year?

(A) 2012

(B) 2015

(C) 2018

(D) 2020

**Q50.** Which of the following is a primary consumer in an ecosystem?

(A) Hawk



- (B) Snake
- (C) Deer
- (D) Fungus



**Detailed Solutions****Q1.****Solution**

**Concept:** Solving simultaneous linear equations based on percentage and absolute values to find the maximum marks.

**Solution:** Let the maximum marks be 'M' and the passing marks be 'P'.

From the first student's performance:

$$60\% \text{ of } M = 0.60M$$

Since the student fails by 20 marks, the passing marks are 20 more than what they scored.

$$P = 0.60M + 20 \text{ (Equation 1)}$$

From the second student's performance:

$$75\% \text{ of } M = 0.75M$$

Since the student scores 25 marks more than the passing marks, the passing marks are 25 less than what they scored.

$$P = 0.75M - 25 \text{ (Equation 2)}$$

Equating Equation 1 and Equation 2:

$$0.60M + 20 = 0.75M - 25$$

Add 25 to both sides and subtract 0.60M from both sides:

$$20 + 25 = 0.75M - 0.60M$$

$$45 = 0.15M$$

$$M = 45 / 0.15$$

$$M = 45 / (15/100)$$

$$M = (45 * 100) / 15$$

$$M = 3 * 100$$

$$M = 300$$

The maximum marks of the examination are 300.

**Final Answer : "300"**

**Answer: (C)**



Q2.

**Solution**

**Concept:** Profit and Loss calculations involving markup and discount percentages. Profit = Selling Price - Cost Price.

**Solution:** Let the Cost Price (CP) of the goods be ₹ CP.

The shopkeeper marks up his goods by 40% above the cost price.

$$\text{Marked Price (MP)} = \text{CP} * (1 + 40/100) = \text{CP} * (1 + 0.40) = 1.40 * \text{CP}$$

He then offers a discount of 20% on the marked price.

$$\text{Selling Price (SP)} = \text{MP} * (1 - 20/100) = \text{MP} * (1 - 0.20) = 0.80 * \text{MP}$$

Substitute  $\text{MP} = 1.40 * \text{CP}$  into the SP equation:

$$\text{SP} = 0.80 * (1.40 * \text{CP})$$

$$\text{SP} = 1.12 * \text{CP}$$

The profit is given as ₹ 48.

$$\text{Profit} = \text{SP} - \text{CP}$$

$$48 = 1.12 * \text{CP} - \text{CP}$$

$$48 = (1.12 - 1) * \text{CP}$$

$$48 = 0.12 * \text{CP}$$

To find CP:

$$\text{CP} = 48 / 0.12$$

$$\text{CP} = 48 / (12/100)$$

$$\text{CP} = (48 * 100) / 12$$

$$\text{CP} = 4 * 100$$

$$\text{CP} = ₹ 400$$

The cost price of the goods is ₹ 400.

**Final Answer :** “₹ 400”

**Answer: (B)**



Q3.

**Solution**

**Concept:** Compound Interest. The amount compounded annually grows by a factor of  $(1 + R/100)$  each year.

**Solution:** Let the principal amount be  $P$  and the rate of interest be  $R\%$  per annum. The formula for amount  $A$  after 'n' years compounded annually is  $A = P(1 + R/100)^n$ .

Given:

Amount after 2 years ( $A_2$ ) = ₹ 13,380

$$A_2 = P(1 + R/100)^2 = 13,380 \text{ (Equation 1)}$$

Amount after 3 years ( $A_3$ ) = ₹ 20,070

$$A_3 = P(1 + R/100)^3 = 20,070 \text{ (Equation 2)}$$

Divide Equation 2 by Equation 1:

$$(P(1 + R/100)^3) / (P(1 + R/100)^2) = 20,070 / 13,380$$

$$1 + R/100 = 2007 / 1338$$

Simplify the fraction 2007/1338. Both are divisible by 3:

$$2007 / 3 = 669$$

$$1338 / 3 = 446$$

$$\text{So, } 1 + R/100 = 669 / 446$$

Now, divide 669 by 446:

$$669 / 446 = 1.5$$

Therefore,  $1 + R/100 = 1.5$

$$R/100 = 1.5 - 1$$

$$R/100 = 0.5$$

$$R = 0.5 * 100$$

$$R = 50\%$$

The rate of interest per annum is 50%.

**Final Answer :** "50%"

**Answer: (D)**



Q4.

**Solution**

**Concept:** Ratio and Proportion, forming simultaneous equations based on Income - Expenditure = Savings.

**Solution:** Let the incomes of A and B be  $3x$  and  $2x$  respectively.

Let the expenditures of A and B be  $5y$  and  $3y$  respectively.

Savings = Income - Expenditure

For A:

$$3x - 5y = 2000 \text{ (Equation 1)}$$

For B:

$$2x - 3y = 2000 \text{ (Equation 2)}$$

We have a system of two linear equations. We can solve for  $x$  and  $y$ .

Multiply Equation 1 by 2 and Equation 2 by 3 to make the coefficients of  $x$  equal:

$$2 * (3x - 5y) = 2 * 2000 \Rightarrow 6x - 10y = 4000 \text{ (Equation 3)}$$

$$3 * (2x - 3y) = 3 * 2000 \Rightarrow 6x - 9y = 6000 \text{ (Equation 4)}$$

Subtract Equation 3 from Equation 4:

$$(6x - 9y) - (6x - 10y) = 6000 - 4000$$

$$6x - 9y - 6x + 10y = 2000$$

$$y = 2000$$

Substitute the value of  $y$  back into Equation 2 (or Equation 1):

$$2x - 3(2000) = 2000$$

$$2x - 6000 = 2000$$

$$2x = 2000 + 6000$$

$$2x = 8000$$

$$x = 8000 / 2$$

$$x = 4000$$

The income of A is  $3x$ .

$$\text{Income of A} = 3 * 4000 = ₹ 12000.$$

**Final Answer :** “₹ 12000”

**Answer:** (C)



Q5.

**Solution**

**Concept:** Work rate =  $\frac{1}{\text{days}}$ . Total work is the sum of individual contributions.

**Solution:** A:  $\frac{1}{10}$ , B:  $\frac{1}{12}$ , C:  $\frac{1}{15}$

First 2 days (A+B+C):  $\frac{1}{10} + \frac{1}{12} + \frac{1}{15} = \frac{6+5+4}{60} = \frac{15}{60} = \frac{1}{4}$

Work done in 2 days =  $2 \times \frac{1}{4} = \frac{1}{2}$  Remaining work =  $\frac{1}{2}$

Let total time =  $T$  days. A worked 2 days, B worked  $(T - 3)$  days, C worked  $T$  days.

Total work:  $\frac{1}{10} \times 2 + \frac{1}{12}(T - 3) + \frac{1}{15}T = 1$

$\frac{1}{5} + \frac{T-3}{12} + \frac{T}{15} = 1$

Multiply by 60:  $12 + 5(T - 3) + 4T = 60$

$12 + 5T - 15 + 4T = 60$   $9T - 3 = 60 \Rightarrow 9T = 63 \Rightarrow T = 7$

**Final Answer :** “7 days”

**Answer:** (A)



Q6.

**Solution**

**Concept:** Time, Speed, and Distance. Distance = Speed  $\times$  Time. When distance is constant, Speed is inversely proportional to Time.

**Solution:** First, calculate the total distance covered by the train.

Given speed (S1) = 60 km/hr

Given time (T1) = 8 hours

Distance (D) = S1  $\times$  T1

D = 60 km/hr  $\times$  8 hours

D = 480 km

Now, we need to cover the same distance (D = 480 km) in a new time (T2) = 5 hours.

Let the new speed be S2.

D = S2  $\times$  T2

480 km = S2  $\times$  5 hours

To find S2:

S2 = 480 km / 5 hours

S2 = 96 km/hr

The train's speed should be 96 km/hr to cover the same distance in 5 hours.

**Final Answer :** "96 km/hr"

**Answer:** (C)



Q7.

**Solution**

**Concept:** Average. Average = Sum of values / Number of values.

**Solution:** Let the number of students be  $N_s = 30$ .

Let the number of teachers be  $N_t = 1$ .

Total number of people (students + teacher) =  $N_s + N_t = 30 + 1 = 31$ .

The average age of 30 students and a teacher is 15 years.

Sum of ages of 31 people = Average age Total number of people

$Sum_{total} = 15 \text{ years} \times 31 = 465 \text{ years}$ .

If the teacher's age is excluded, there are only 30 students.

The average age of the 30 students becomes 14 years.

Sum of ages of 30 students = Average age of students  $\times$  Number of students

$Sum_{students} = 14 \text{ years} \times 30 = 420 \text{ years}$ .

The teacher's age is the difference between the total sum of ages and the sum of students' ages.

Teacher's age =  $Sum_{total} - Sum_{students}$

$Teacher's \text{ age} = 465 - 420$

$Teacher's \text{ age} = 45 \text{ years}$ .

The teacher's age is 45 years.

**Final Answer :** "45 years"

**Answer: (C)**



Q8.

**Solution**

**Concept:** If two articles are sold at the same selling price with equal profit and loss of  $x\%$ , there is always a net loss of  $\left(\frac{x}{10}\right)^2\%$ .

**Solution:** Given SP of each article = ₹ 1955.

Profit = 15%, Loss = 15%.

Using formula: Loss % =  $\left(\frac{15}{10}\right)^2 = (1.5)^2 = 2.25\%$

Alternatively, verifying using CP:

For 15% profit:  $1955 = 1.15 \times CP_1 \Rightarrow CP_1 = ₹ 1700$

For 15% loss:  $1955 = 0.85 \times CP_2 \Rightarrow CP_2 = ₹ 2300$

Total CP =  $1700 + 2300 = ₹ 4000$

Total SP =  $1955 + 1955 = ₹ 3910$

Loss =  $4000 - 3910 = ₹ 90$

Loss % =  $\frac{90}{4000} \times 100 = 2.25\%$

Thus, there is an overall loss of 2.25%.

**Final Answer :** “2.25% loss”

**Answer:** (A)



Q9.

**Solution****Concept:** Work rate method using linear equations for men and boys.**Solution:** Let 1 man's 1-day work =  $M$ , and 1 boy's 1-day work =  $B$ .

Given:  $2M + 3B = \frac{1}{10}$  ... (1)

$3M + 2B = \frac{1}{8}$  ... (2)

Multiply (1) by 2 and (2) by 3:

$4M + 6B = \frac{1}{5}$

$9M + 6B = \frac{3}{8}$

Subtracting:  $5M = \frac{3}{8} - \frac{1}{5} = \frac{15-8}{40} = \frac{7}{40}$

$\Rightarrow M = \frac{7}{200}$

Substitute in (1):  $2\left(\frac{7}{200}\right) + 3B = \frac{1}{10}$

$\frac{7}{100} + 3B = \frac{1}{10}$

$3B = \frac{1}{10} - \frac{7}{100} = \frac{3}{100}$

$\Rightarrow B = \frac{1}{100}$

Now, for (2 men + 1 boy):  $2M + B = 2\left(\frac{7}{200}\right) + \frac{1}{100} = \frac{7}{100} + \frac{1}{100} = \frac{8}{100} = \frac{2}{25}$

Time required =  $\frac{1}{2/25} = \frac{25}{2} = 12\frac{1}{2}$  days.

**Final Answer :** "12  $\frac{1}{2}$  days"**Answer: (B)**

Q10.

**Solution**

**Concept:** Mixtures and Alligations. Using ratios and solving algebraic equations based on changes in quantities.

**Solution:** Let the initial quantity of milk in the mixture be  $5x$  liters.

Let the initial quantity of water in the mixture be  $3x$  liters.

The initial ratio of milk to water is  $5x : 3x$ , which simplifies to  $5:3$ .

10 liters of water are added to the mixture.

The quantity of milk remains unchanged =  $5x$  liters.

The new quantity of water =  $(3x + 10)$  liters.

The new ratio of milk to water becomes  $5:4$ .

So, (Quantity of Milk) / (Quantity of Water) =  $5 / 4$

$$5x / (3x + 10) = 5 / 4$$

Cross-multiply the terms:

$$5x * 4 = 5 * (3x + 10)$$

$$20x = 15x + 50$$

Subtract  $15x$  from both sides:

$$20x - 15x = 50$$

$$5x = 50$$

Divide by 5 to find  $x$ :

$$x = 50 / 5$$

$$x = 10$$

The quantity of milk in the mixture is  $5x$ .

Quantity of milk =  $5 * 10 = 50$  liters.

**Final Answer :** “50 liters”

**Answer: (B)**



Q11.

**Solution**

**Concept:** Simplification of mixed fractions using the property  $(a\frac{b}{c}) = a + \frac{b}{c}$  and then applying the distributive property of multiplication.

**Solution:** The given expression is  $(999\frac{995}{999} \times 999)$ .

First, convert the mixed fraction to an expression involving addition:

$$999\frac{995}{999} = 999 + \frac{995}{999}$$

Now, multiply this by 999:

$$(999 + \frac{995}{999}) \times 999$$

Apply the distributive property  $(A + B)C = AC + BC$ :

$$= (999 \times 999) + (\frac{995}{999} \times 999)$$

Simplify the terms:

$$= 999^2 + 995$$

Calculate  $999^2$ . It can be written as  $(1000 - 1)^2$ :

$$999^2 = (1000 - 1)^2 = 1000^2 - 2 \times 1000 \times 1 + 1^2$$

$$999^2 = 1000000 - 2000 + 1$$

$$999^2 = 998001$$

Now, substitute this back into the expression:

$$= 998001 + 995$$

$$= 998996$$

**Final Answer : “998996”**

**Answer: (B)**



Q12.

**Solution**

**Concept:** The relationship between two numbers, their HCF, and their product. If two numbers are  $N_1$  and  $N_2$  and their HCF is  $H$ , then  $N_1 = Ha$  and  $N_2 = Hb$ , where 'a' and 'b' are coprime integers. The product  $N_1 \times N_2 = H^2 \times a \times b$ .

**Solution:** Let the two numbers be  $N_1$  and  $N_2$ .

Given that their HCF (Highest Common Factor) is 13.

So, we can write the numbers as  $N_1 = 13a$  and  $N_2 = 13b$ , where 'a' and 'b' are coprime integers (meaning  $\text{HCF}(a, b) = 1$ ).

The product of the two numbers is given as 2028.

$$N_1 \times N_2 = 2028$$

$$(13a) \times (13b) = 2028$$

$$169ab = 2028$$

Now, solve for the product 'ab':

$$ab = 2028/169$$

$$ab = 12$$

We need to find pairs of integers (a, b) such that their product is 12 and they are coprime. Let's list the factor pairs of 12 and check their HCF:

1. (1, 12):  $\text{HCF}(1, 12) = 1$ . (Coprime)

This pair gives the numbers  $N_1 = 13 \times 1 = 13$  and  $N_2 = 13 \times 12 = 156$ .

2. (2, 6):  $\text{HCF}(2, 6) = 2$ . (Not coprime)

3. (3, 4):  $\text{HCF}(3, 4) = 1$ . (Coprime)

This pair gives the numbers  $N_1 = 13 \times 3 = 39$  and  $N_2 = 13 \times 4 = 52$ .

The pairs of coprime integers (a, b) are (1, 12) and (3, 4).

Each pair (a, b) corresponds to a unique pair of numbers ( $N_1, N_2$ ).

Therefore, there are 2 such pairs of numbers possible.

**Final Answer : "2"**

**Answer: (B)**



Q13.

**Solution**

**Concept:** Divisibility rule for 11. A number is divisible by 11 if the difference between the sum of its digits at odd places (from the right) and the sum of its digits at even places (from the right) is either 0 or a multiple of 11.

**Solution:** Let's apply the divisibility rule for 11 to each option:

(A) 235641

Sum of digits at odd places (1st, 3rd, 5th from right):  $1 + 6 + 3 = 10$

Sum of digits at even places (2nd, 4th, 6th from right):  $4 + 5 + 2 = 11$

Difference =  $11 - 10 = 1$ . Since 1 is not 0 or a multiple of 11, 235641 is not divisible by 11.

(B) 245642

Sum of digits at odd places:  $2 + 6 + 4 = 12$

Sum of digits at even places:  $4 + 5 + 2 = 11$

Difference =  $12 - 11 = 1$ . Not divisible by 11.

(C) 315624

Sum of digits at odd places:  $4 + 6 + 1 = 11$

Sum of digits at even places:  $2 + 5 + 3 = 10$

Difference =  $11 - 10 = 1$ . Not divisible by 11.

(D) 415624

Sum of digits at odd places:  $4 + 6 + 1 = 11$

Sum of digits at even places:  $2 + 5 + 4 = 11$

Difference =  $11 - 11 = 0$ . Since the difference is 0, 415624 is exactly divisible by 11.

**Final Answer : "415624"**

**Answer: (D)**



Q14.

**Solution**

**Concept:** Algebraic identity  $(a + b)^2 = a^2 + 2ab + b^2$ . For  $x + \frac{1}{x}$ ,  $(x + \frac{1}{x})^2 = x^2 + 2 + \frac{1}{x^2}$ , which implies  $x^2 + \frac{1}{x^2} = (x + \frac{1}{x})^2 - 2$ . Rationalization of surds.

**Solution:** Given  $x = 3 + \sqrt{8}$ .

First, simplify  $\sqrt{8}$ :  $\sqrt{8} = \sqrt{4 \times 2} = 2\sqrt{2}$ .

So,  $x = 3 + 2\sqrt{2}$ .

Next, find the reciprocal  $1/x$ :

$$\frac{1}{x} = \frac{1}{3+2\sqrt{2}}$$

To simplify, rationalize the denominator by multiplying the numerator and denominator by the conjugate of the denominator, which is  $3 - 2\sqrt{2}$ :

$$\frac{1}{x} = \frac{1}{3+2\sqrt{2}} \times \frac{3-2\sqrt{2}}{3-2\sqrt{2}}$$

Using the difference of squares formula  $(a + b)(a - b) = a^2 - b^2$ :

$$\frac{1}{x} = \frac{3-2\sqrt{2}}{3^2-(2\sqrt{2})^2}$$

$$\frac{1}{x} = \frac{3-2\sqrt{2}}{9-(4 \times 2)}$$

$$\frac{1}{x} = \frac{3-2\sqrt{2}}{9-8}$$

$$\frac{1}{x} = \frac{3-2\sqrt{2}}{1}$$

$$\frac{1}{x} = 3 - 2\sqrt{2}$$

Now, calculate  $x + \frac{1}{x}$ :

$$x + \frac{1}{x} = (3 + 2\sqrt{2}) + (3 - 2\sqrt{2})$$

$$x + \frac{1}{x} = 3 + 3 + 2\sqrt{2} - 2\sqrt{2}$$

$$x + \frac{1}{x} = 6$$

Finally, we need to find the value of  $x^2 + \frac{1}{x^2}$ . We use the identity:

$$(x + \frac{1}{x})^2 = x^2 + 2(x)(\frac{1}{x}) + (\frac{1}{x})^2$$

$$(x + \frac{1}{x})^2 = x^2 + 2 + \frac{1}{x^2}$$

$$\text{So, } x^2 + \frac{1}{x^2} = (x + \frac{1}{x})^2 - 2$$

Substitute the value of  $x + \frac{1}{x} = 6$ :

$$x^2 + \frac{1}{x^2} = (6)^2 - 2$$

$$x^2 + \frac{1}{x^2} = 36 - 2$$

$$x^2 + \frac{1}{x^2} = 34$$

**Final Answer : "34"**

**Answer: (A)**



Q15.

**Solution****Concept:** Algebraic identity  $(a + b)^2 = a^2 + b^2 + 2ab$ .**Solution:** We are given two equations:

1.  $3x + 2y = 12$
2.  $xy = 6$

We need to find the value of  $9x^2 + 4y^2$ .Notice that  $9x^2 = (3x)^2$  and  $4y^2 = (2y)^2$ . This suggests squaring the first equation.Square both sides of the equation  $3x + 2y = 12$ :

$$(3x + 2y)^2 = (12)^2$$

Expand the left side using the identity  $(a + b)^2 = a^2 + b^2 + 2ab$ , where  $a = 3x$  and  $b = 2y$ :

$$(3x)^2 + (2y)^2 + 2(3x)(2y) = 144$$

$$9x^2 + 4y^2 + 12xy = 144$$

Now, substitute the value of  $xy = 6$  into this equation:

$$9x^2 + 4y^2 + 12(6) = 144$$

$$9x^2 + 4y^2 + 72 = 144$$

To find  $9x^2 + 4y^2$ , subtract 72 from both sides:

$$9x^2 + 4y^2 = 144 - 72$$

$$9x^2 + 4y^2 = 72$$

**Final Answer : "72"****Answer: (B)**

Q16.

**Solution**

**Concept:** The area of a triangle is given by the formula  $\frac{1}{2} \times \text{base} \times \text{height}$ . In a rectangle, opposite sides are equal, and all angles are 90 degrees, meaning the width of the rectangle serves as the height for a triangle with its base along one of the lengths.

**Solution:** Given a rectangle  $ABCD$  with length  $AB = 20$  cm and width  $BC = 10$  cm.

We need to find the area of triangle  $ABE$ .

We can consider  $AB$  as the base of the triangle  $ABE$ . So, base ( $b$ ) =  $AB = 20$  cm.

The point  $E$  is on the side  $CD$ . Since  $ABCD$  is a rectangle, the perpendicular distance from any point on  $CD$  to the side  $AB$  is equal to the width of the rectangle, which is  $BC$  or  $AD$ . Therefore, the height ( $h$ ) of the triangle  $ABE$  corresponding to the base  $AB$  is  $BC = 10$  cm.

Area of triangle  $ABE = \frac{1}{2} \times \text{base} \times \text{height}$

Area =  $\frac{1}{2} \times AB \times BC$

Area =  $\frac{1}{2} \times 20 \text{ cm} \times 10 \text{ cm}$

Area =  $10 \times 10 \text{ cm}^2$

Area =  $100 \text{ cm}^2$ .

**Final Answer :** “100 cm<sup>2</sup>”

**Answer: (B)**



Q17.

**Solution**

**Concept:** The total surface area of a composite solid is the sum of the exposed surface areas of its individual components. For a solid formed by a cylinder with a hemisphere on top, the exposed surface includes the curved surface area of the cylinder and the curved surface area of the hemisphere. The circular base of the cylinder is excluded as per the question, and the interface area where the cylinder and hemisphere join is internal, hence not part of the total exposed surface.

**Solution:** The solid consists of a cylinder and a hemisphere.

Given: Radius of both the cylinder and the hemisphere ( $r$ ) = 7 cm

Height of the cylindrical part ( $h$ ) = 10 cm

We need to find the total surface area of this solid, \*excluding the base of the cylinder\*. Therefore, the total surface area will be the sum of the Curved Surface Area of the Cylinder and the Curved Surface Area of the Hemisphere.

**1. Curved Surface Area of Cylinder ( $CSA_{cyl}$ ) :**

*The formula for the curved surface area of a cylinder is  $2\pi rh$ .*

$$CSA_{cyl} = 2 \times \frac{22}{7} \times 7 \text{ cm} \times 10 \text{ cm}$$

**By canceling out the '7' in the numerator and denominator:**

$$CSA_{cyl} = 2 \times 22 \times 10 \text{ cm}^2$$

$$CSA_{cyl} = 440 \text{ cm}^2$$

**2. Curved Surface Area of Hemisphere ( $CSA_{hemi}$ ) :**

*The formula for the curved surface area of a hemisphere is  $2\pi r^2$ .*

$$CSA_{hemi} = 2 \times \frac{22}{7} \times (7 \text{ cm})^2$$

$$CSA_{hemi} = 2 \times \frac{22}{7} \times 49 \text{ cm}^2$$

**By canceling out '7' (from 49, which is  $7 \times 7$ ) with the '7' in the denominator:**

$$CSA_{hemi} = 2 \times 22 \times 7 \text{ cm}^2$$

$$CSA_{hemi} = 308 \text{ cm}^2$$

**Now, we sum these two areas to find the total surface area of the solid (excluding the base):**

$$\text{Total Surface Area} = CSA_{cyl} + CSA_{hemi}$$

$$\text{Total Surface Area} = 440 \text{ cm}^2 + 308 \text{ cm}^2$$

$$\text{Total Surface Area} = 748 \text{ cm}^2.$$

**Final Answer : "748 cm<sup>2</sup>"**

**Answer: (A)**



Q18.

**Solution**

**Concept:** To find a percentage of a total amount, convert the percentage to a decimal or fraction and multiply it by the total amount. To find the difference between two amounts, subtract the smaller amount from the larger amount.

**Solution:** Given: Total monthly income of the family = ₹ 50,000. Percentage spent on Rent = 25  
Percentage saved = 15

1. **Amount spent on Rent:** Amount on Rent = 25  
Amount on Rent =  $\frac{25}{100} \times 50,000$   
Amount on Rent =  $0.25 \times 50,000$   
Amount on Rent = | 12,500

2. **Amount saved:** Amount saved = 15  
Amount saved =  $\frac{15}{100} \times 50,000$   
Amount saved =  $0.15 \times 50,000$   
Amount saved = | 7,500

3. **Difference between amount spent on Rent and amount saved:** Difference = Amount on Rent - Amount saved  
Difference = ₹ 12,500 - ₹ 7,500  
Difference = ₹ 5,000

**Final Answer :** “₹ 5,000”

**Answer: (B)**



Q19.

**Solution**

**Concept:** The volume of a cone is given by the formula  $V = \frac{1}{3}\pi r^2 h$ , where 'r' is the radius of the base and 'h' is the height.

**Solution:** Let the volumes of the two cones be  $V_1$  and  $V_2$ .

Let their radii be  $r_1$  and  $r_2$ .

Let their heights be  $h_1$  and  $h_2$ .

Given ratios:

$$\text{Ratio of volumes: } V_1 : V_2 = 2 : 3 \implies \frac{V_1}{V_2} = \frac{2}{3}.$$

$$\text{Ratio of radii: } r_1 : r_2 = 1 : 2 \implies \frac{r_1}{r_2} = \frac{1}{2}.$$

The formula for the volume of a cone is  $V = \frac{1}{3}\pi r^2 h$ .

$$\text{For the first cone: } V_1 = \frac{1}{3}\pi r_1^2 h_1.$$

$$\text{For the second cone: } V_2 = \frac{1}{3}\pi r_2^2 h_2.$$

Now, let's find the ratio of their volumes using the formula:

$$\frac{V_1}{V_2} = \frac{\frac{1}{3}\pi r_1^2 h_1}{\frac{1}{3}\pi r_2^2 h_2}$$

The common terms  $\frac{1}{3}\pi$  cancel out:

$$\frac{V_1}{V_2} = \frac{r_1^2 h_1}{r_2^2 h_2}$$

This can be rewritten as:

$$\frac{V_1}{V_2} = \left(\frac{r_1}{r_2}\right)^2 \times \left(\frac{h_1}{h_2}\right)$$

Substitute the given ratios into this equation:

$$\frac{2}{3} = \left(\frac{1}{2}\right)^2 \times \left(\frac{h_1}{h_2}\right)$$

$$\frac{2}{3} = \frac{1}{4} \times \left(\frac{h_1}{h_2}\right)$$

Now, solve for the ratio of the heights  $\frac{h_1}{h_2}$ :

$$\frac{h_1}{h_2} = \frac{2}{3} \div \frac{1}{4}$$

$$\frac{h_1}{h_2} = \frac{2}{3} \times 4$$

$$\frac{h_1}{h_2} = \frac{8}{3}$$

So, the ratio of their heights is 8:3.

**Final Answer : "8:3"**

**Answer: (A)**



Q20.

**Solution**

**Concept:** Letter coding based on a consistent shift in alphabetical position for each letter.

**Solution:** Let's analyze the coding pattern for 'APPLE' to 'BQQMF':

A → B ( $A + 1 = B$ )

P → Q ( $P + 1 = Q$ )

P → Q ( $P + 1 = Q$ )

L → M ( $L + 1 = M$ )

E → F ( $E + 1 = F$ )

The pattern is that each letter in the word is shifted forward by one position in the alphabet.

Now, apply this pattern to code 'MANGO':

M + 1 = N

A + 1 = B

N + 1 = O

G + 1 = H

O + 1 = P

So, 'MANGO' is coded as 'NBOHP'.

**Final Answer :** "NBOHP"

**Answer: (B)**



Q21.

**Solution**

**Concept:** Blood relations puzzle, requiring careful interpretation of familial relationships.

**Solution:** Let's break down the man's statement: "I have no brother or sister, but that man's father is my father's son."

1. "I have no brother or sister": This implies that the man speaking is an only child.
2. "my father's son": Since the speaker is an only child, his father's son must be himself. So, "my father's son" = The speaker.
3. Substitute this back into the full statement: "that man's father is [the speaker]."
4. If "that man's father" is the speaker, then "that man" must be the speaker's son.

Therefore, the photograph was of his son.

**Final Answer :** "His son's"

**Answer:** (C)



Q22.

**Solution**

**Concept:** Direction and Distance. Resolving movements into net displacement along cardinal directions (North-South and East-West) and then using the Pythagorean theorem.

**Solution:** Let's track the man's movements:

1. Walks 10 km North. (Net North = +10 km)
2. Then 6 km East. (Net East = +6 km)
3. Then 2 km South. (Net North = +10 - 2 = +8 km)

So, from the starting point, the man is 8 km North and 6 km East.

This forms a right-angled triangle where the legs are 8 km (North) and 6 km (East), and the hypotenuse is the direct distance from the starting point.

Using the Pythagorean theorem: Distance =  $\sqrt{(\text{Net North displacement})^2 + (\text{Net East displacement})^2}$

$$\text{Distance} = \sqrt{8^2 + 6^2}$$

$$\text{Distance} = \sqrt{64 + 36}$$

$$\text{Distance} = \sqrt{100}$$

$$\text{Distance} = 10 \text{ km.}$$

The direction is North-East because the net displacement is 8 km North and 6 km East.

**Final Answer :** "10 km, North-East"

**Answer:** (A)



Q23.

**Solution**

**Concept:** Number series. Identifying the arithmetic or geometric pattern between consecutive terms.

**Solution:** Let's analyze the pattern in the given series: 3, 7, 15, 31, 63, ?

Method 1: By checking the difference between consecutive terms:

$$7 - 3 = 4$$

$$15 - 7 = 8$$

$$31 - 15 = 16$$

$$63 - 31 = 32$$

The differences are 4, 8, 16, 32. This is a geometric progression where each term is twice the previous one ( $4 \times 2 = 8$ ,  $8 \times 2 = 16$ ,  $16 \times 2 = 32$ ).

The next difference should be  $32 \times 2 = 64$ .

So, the next term in the series will be  $63 + 64 = 127$ .

Method 2: By finding a direct relationship between terms:

Notice that each term is roughly twice the previous term.

$$3 \times 2 + 1 = 6 + 1 = 7$$

$$7 \times 2 + 1 = 14 + 1 = 15$$

$$15 \times 2 + 1 = 30 + 1 = 31$$

$$31 \times 2 + 1 = 62 + 1 = 63$$

Following this pattern, the next term is:

$$63 \times 2 + 1 = 126 + 1 = 127.$$

**Final Answer :** "127"

**Answer: (B)**



Q24.

**Solution**

**Concept:** Alphabet series. Identifying the pattern based on the position of letters in the alphabet.

**Solution:** Let's write down the positional values of the given letters (A=1, B=2, ..., Z=26):

$$B = 2$$

$$E = 5$$

$$I = 9$$

$$N = 14$$

$$T = 20$$

?

Now, let's find the difference in positional values between consecutive terms:

$$E - B = 5 - 2 = 3$$

$$I - E = 9 - 5 = 4$$

$$N - I = 14 - 9 = 5$$

$$T - N = 20 - 14 = 6$$

We observe a pattern in the differences: +3, +4, +5, +6.

The next difference in the pattern should be +7.

So, the next term will be  $T + 7$ .

Positional value of T is 20.

$$20 + 7 = 27.$$

Since the alphabet has 26 letters, 27 corresponds to the 1st letter after wrapping around. So, the 27th letter is A.

**Final Answer : "A"**

**Answer: (A)**



Q25.

**Solution**

**Concept:** Direct letter coding, where each letter is consistently assigned a specific digit.

**Solution:** From the first coding: 'RAMAN' is coded as '12325'.

R = 1

A = 2

M = 3

A = 2 (consistent)

N = 5

From the second coding: 'DINESH' is coded as '675849'.

D = 6

I = 7

N = 5 (consistent with 'RAMAN')

E = 8

S = 4

H = 9

We need to code 'HAMAM'. We will use the assigned digits:

H = 9 (from DINESH)

A = 2 (from RAMAN)

M = 3 (from RAMAN)

A = 2 (from RAMAN)

M = 3 (from RAMAN)

Combining these, 'HAMAM' is coded as '92323'.

**Final Answer : "92323"**

**Answer: (A)**



Q26.

**Solution****Concept:** Blood relations. Constructing a family tree to deduce relationships.**Solution:** Let's break down the relationships step by step:

1. "A is the mother of B."

A (-)

|

B

2. "B is the sister of D."

A (-)

|

B (-) — D

3. "C is the father of D."

Since B and D are siblings, C is also the father of B.

A (-) — C (+) (Married couple)

|

B (-) — D

4. "E is the mother of C."

E (-)

|

C (+) — A (-)

|

B (-) — D

Now, we need to find how A is related to E.

From the family tree:

C is the son of E.

A is the wife of C.

Therefore, A is the daughter-in-law of E.

**Final Answer : "Daughter-in-law"****Answer: (C)**

Q27.

**Solution**

**Concept:** Direction and Distance. Tracking the sequence of movements and turns to determine the final position relative to the starting point.

**Solution:** Let's denote Ravi's movements using a coordinate system, starting from his house at (0,0). 1. Walks 20m West: From (0,0) to (-20, 0). (Current direction: West)

2. Turns left (now facing South) and walks 10m: From (-20, 0) to (-20, -10). (Current direction: South)

3. Turns right (now facing West) and walks 5m: From (-20, -10) to (-25, -10). (Current direction: West)

4. Turns right (now facing North) and walks 10m: From (-25, -10) to (-25, 0). (Current direction: North)

5. Turns left (now facing West) and walks 5m: From (-25, 0) to (-30, 0). (Current direction: West)

Ravi's final position is at (-30, 0).

His starting point (house) was at (0,0).

Since the x-coordinate is -30 and the y-coordinate is 0, he is 30m to the West of his house.

**Final Answer :** "West"

**Answer:** (D)



Q28.

**Solution**

**Concept:** Syllogistic reasoning. Deduce conclusions from given statements by understanding the relationships between categories (All, Some, No). Venn diagrams can be helpful.

**Solution:** Let's analyze the statements and derive conclusions:

1. Some pens are pencils. (P C )
2. All pencils are erasers. (C E)
3. All erasers are books. (E B)

From (2) and (3): Since all pencils are erasers and all erasers are books, it logically follows that All pencils are books. (C B)

This confirms Conclusion II.

Now, let's consider Conclusion I:

From (1) "Some pens are pencils" and from our derived statement "All pencils are books".

If some pens are a subset of pencils, and all pencils are a subset of books, then those "some pens" that are pencils must also be books.

Therefore, Some pens are books. (P B )

This confirms Conclusion I.

Both conclusions I and II logically follow from the given statements.

**Final Answer :** "Both I and II follow"

**Answer:** (C)



Q29.

**Solution**

**Concept:** Venn diagrams are used to represent relationships between different sets. Hierarchical relationships (where one set is entirely contained within another) are represented by nested circles.

**Solution:** Let's analyze the relationship between "Animals, Mammals, Cows":

1. All Cows are Mammals. (Cows are a subset of Mammals)
2. All Mammals are Animals. (Mammals are a subset of Animals)

This is a hierarchical relationship.

Therefore, the representation should be:

A circle for "Cows"

This circle is completely inside a larger circle for "Mammals"

The "Mammals" circle is completely inside an even larger circle for "Animals"

This corresponds to option (B).

**Final Answer :** "A circle representing Cows completely enclosed within a circle representing Mammals, which is completely enclosed within a circle representing Animals."

**Answer: (B)**



Q30.

**Solution**

**Concept:** Syllogistic reasoning. Deduce conclusions from given statements by understanding the relationships between categories (All, Some, No). Venn diagrams can be helpful.

**Solution:** Let's analyze the statements:

1. All tables are chairs. (Tables Chairs)
2. Some chairs are benches. (Chairs Benches )
3. No bench is a desk. (Benches Desks = )

Now let's evaluate the conclusions:

Conclusion I: Some chairs are not desks.

From (2), we know that there is an overlap between chairs and benches.

From (3), we know that benches and desks have no overlap (they are disjoint sets).

Therefore, any chair that is also a bench cannot be a desk. Since some chairs are benches, it means those "some chairs" are definitely not desks.

So, Conclusion I follows.

Conclusion II: Some tables are benches.

From (1), all tables are chairs. (Tables are inside the set of Chairs).

From (2), some chairs are benches.

This statement only tells us that there's an overlap between chairs and benches. It does not guarantee that this overlap extends to tables. It's possible that the "some chairs" that are benches are only those chairs that are *not* tables.

For example, if Chairs = Table1, Table2, Chair1, Chair2 and Tables = Table1, Table2. If Benches = Chair1, Chair2, then no tables are benches. If Benches = Table1, Chair1, then some tables are benches.

Since this conclusion is not always true, it does not necessarily follow.

Therefore, only Conclusion I follows.

**Final Answer :** "Only conclusion I follows"

**Answer:** (A)



Q31.

**Solution**

**Concept:** Ranking and Order. To find the total number of items in a row when the position of one item is known from both ends, use the formula:  $\text{Total} = (\text{Position from left}) + (\text{Position from right}) - 1$ .

**Solution:** Given:

Riya's position from the left = 15th

Riya's position from the right = 12th

When we add Riya's position from the left and her position from the right, Riya herself is counted twice. To get the total number of students, we need to subtract 1 to account for this double counting.

Total number of students =  $(\text{Position from left}) + (\text{Position from right}) - 1$

Total number of students =  $15 + 12 - 1$

Total number of students =  $27 - 1$

Total number of students = 26

There are 26 students in the row.

**Final Answer :** "26"

**Answer:** (B)



Q32.

**Solution**

**Concept:** Mirror Imaging and Lateral Inversion.

**Solution:** When a mirror is placed to the right of a word, the image undergoes lateral inversion. A key principle of mirror images is that the part of the object closest to the mirror will appear closest in the reflection.

To find the mirror image of DELIVER:

Reverse the Sequence: Since the 'R' is closest to the mirror (on the right), the mirror image must begin with 'R' and end with 'D'. The sequence of letters in the reflection will be R-E-V-I-L-E-D.

Invert Individual Letters: Each letter must be flipped horizontally:

R flips to become Я.

E flips to become Ǝ.

V and I are vertically symmetrical, so they remain unchanged (V and I).

L flips to become ⅃.

D flips to become Ԁ.

Combine: Putting it all together in the reversed order, we get:

ЯƎVILƎԀ.

Comparing this with the given options, Option (A) correctly represents the reversed order and the horizontal flipping of the asymmetrical letters.

**Final Answer :** "A"

**Answer:** (A)



Q33.

**Solution**

**Concept:** Non-verbal series completion. Identify the pattern of change (movement, rotation, addition, subtraction, etc.) from one figure to the next in the series.

**Solution:** Let's analyze the shading pattern in the given series of figures: Figure 1: The top-left square is shaded.

Figure 2: The top-right square is shaded. (The shading has moved one position clockwise).

Figure 3: The bottom-right square is shaded. (The shading has moved one position clockwise from Figure 2).

Following this consistent pattern, the shaded square is moving one position clockwise around the four smaller squares within the larger square.

Therefore, for Figure 4, the shading should move one position clockwise from the bottom-right square. This means the bottom-left square should be shaded.

**Final Answer :** "A square divided into 4 smaller squares, with the bottom-left square shaded."

**Answer:** (A)



Q34.

**Solution**

**Concept:** This question tests knowledge of significant global awards, specifically the Nobel Peace Prize, which is awarded annually by the Norwegian Nobel Committee to "the person who shall have done the most or the best work for fraternity between nations, for the abolition or reduction of standing armies and for the holding and promotion of peace congresses." It often recognizes individuals or organizations working for human rights, democracy, and conflict resolution. Staying updated on recent laureates and their contributions is crucial for current affairs.

**Solution:** The Nobel Peace Prize for 2023 was announced by the Norwegian Nobel Committee, recognizing an individual for their tireless efforts in a critical human rights struggle.

In 2023, the Nobel Peace Prize was awarded to Narges Mohammadi, an Iranian human rights activist. The prize was bestowed upon her "for her courageous fight for human rights and freedom for all" and specifically highlighted "her fight against the oppression of women in Iran and her fight to promote human rights and freedom for all." She has been imprisoned multiple times for her activism.

(B) Oleksandra Matviichuk, along with the organization Center for Civil Liberties, was a co-laureate of the Nobel Peace Prize in 2022 for their work in documenting war crimes, human rights abuses and the abuse of power.

(C) Ales Bialiatski was also a co-laureate of the Nobel Peace Prize in 2022, recognized for his long-standing work documenting human rights abuses and promoting democracy in Belarus.

(D) Maria Ressa was awarded the Nobel Peace Prize in 2021 for her efforts to safeguard freedom of expression in the Philippines.

Given the criteria in the question, Narges Mohammadi is the correct laureate for 2023.

**Final Answer :** "Narges Mohammadi"

**Answer:** (A)



Q35.

**Solution**

**Concept:** This question pertains to general knowledge about major international sporting events, specifically the Summer Olympic Games. The International Olympic Committee (IOC) selects host cities several years in advance, following a rigorous bidding process. Awareness of the schedule and locations of upcoming Olympics is a common current affairs topic. The Summer Olympics are held every four years, with a gap year due to the COVID-19 pandemic for the 2020 Tokyo Games which were postponed to 2021.

**Solution:** To identify the host city for the 2028 Summer Olympics, it's helpful to know the schedule of recent and upcoming Games:

The 2020 Summer Olympics (held in 2021) were hosted by Tokyo, Japan.

The 2024 Summer Olympics are scheduled to be hosted by Paris, France. This will mark Paris's third time hosting the Games, having previously done so in 1900 and 1924.

The 2028 Summer Olympics have been officially awarded to Los Angeles, USA. This will also be Los Angeles's third time hosting, following 1932 and 1984.

Looking further ahead, the 2032 Summer Olympics have been awarded to Brisbane, Australia.

Based on this confirmed schedule, Los Angeles, USA, will be the host city for the 2028 Summer Olympics.

**Final Answer :** "Los Angeles, USA"

**Answer:** (C)



Q36.

**Solution**

**Concept:** This question assesses knowledge of key personnel in India's financial governance. The Reserve Bank of India (RBI) is the central bank of India and plays a critical role in the country's monetary policy, banking regulation, and financial stability. The Governor of the RBI is its chief executive and is a highly influential figure in the Indian economy. Identifying the current incumbent is a standard current affairs question.

**Solution:** The Governor of the Reserve Bank of India is a pivotal position, overseeing the nation's monetary policy and financial system.

Let's look at the options provided:

- (A) Raghuram Rajan: He served as the 23rd Governor of the RBI from September 2013 to September 2016.
- (B) Urjit Patel: He succeeded Raghuram Rajan as the 24th Governor of the RBI, serving from September 2016 to December 2018.
- (C) Shaktikanta Das: He is the 25th and current Governor of the Reserve Bank of India. He assumed office on December 12, 2018, and continues to hold the position.
- (D) D. Subbarao: He served as the 22nd Governor of the RBI from September 2008 to September 2013.

Therefore, Shaktikanta Das is the current Governor of the Reserve Bank of India.

**Final Answer : "Shaktikanta Das"**

**Answer: (C)**



Q37.

**Solution**

**Concept:** This question tests current affairs knowledge, specifically about major international forums and summits. The G20 (Group of Twenty) is an intergovernmental forum comprising 19 countries and the European Union, which addresses major issues related to the global economy, such as international financial stability, climate change mitigation, and sustainable development. The host country of the annual G20 Summit rotates, making it a key piece of current events information.

**Solution:** The G20 Summit is an annual meeting where leaders from the world's major economies convene to discuss global challenges and coordinate policies. The host country plays a significant role in setting the agenda for the summit year.

The 18th G20 Summit was held on September 9–10, 2023. This highly anticipated event took place in New Delhi, India. It was a historic occasion as it was the first time India hosted the G20 Summit. The summit's theme was "Vasudhaiva Kutumbakam" (One Earth, One Family, One Future), emphasizing global unity.

(A) Bali hosted the 17th G20 Summit in 2022.

(C) Rome hosted the 16th G20 Summit in 2021.

(D) Osaka hosted the 14th G20 Summit in 2019.

Therefore, the 18th G20 Summit in 2023 was held in New Delhi.

**Final Answer :** "New Delhi"

**Answer:** (B)



Q38.

**Solution**

**Concept:** This question tests current affairs knowledge regarding international film awards, specifically the Academy Awards (Oscars). It highlights Indian cinema's recent global recognition. The Best Original Song category recognizes the best song written specifically for a film.

**Solution:** The 95th Academy Awards ceremony, held in March 2023, celebrated films released in 2022. It was a remarkable year for Indian cinema, with multiple nominations and wins.

Let's analyze the options:

(A) RRR (Naatu Naatu): The globally acclaimed song "Naatu Naatu" from the Telugu film RRR, composed by M.M. Keeravani with lyrics by Chandrabose, made history by winning the Oscar for Best Original Song. This was a monumental achievement for an Indian production.

(B) The Elephant Whisperers: This Indian documentary short film also won an Oscar at the 95th Academy Awards, taking home the award for Best Documentary Short Film. While a significant win, it was not for Best Original Song.

(C) All That Breathes: This Indian documentary feature film was nominated in the Best Documentary Feature category but did not win.

(D) Chhello Show (Last Film Show): This Gujarati film was India's official submission for the Best International Feature Film category but did not receive a nomination.

Therefore, the Indian film that won the Oscar for Best Original Song in 2023 was RRR for its song "Naatu Naatu."

**Final Answer :** "RRR (Naatu Naatu)"

**Answer:** (A)



Q39.

**Solution**

**Concept:** This question tests current affairs knowledge related to major international sports tournaments, specifically the ICC Men's Cricket World Cup. The Cricket World Cup is the premier international championship of One Day International (ODI) cricket, organized by the International Cricket Council (ICC) every four years. Following such high-profile events is a common component of general knowledge.

**Solution:** The ICC Men's Cricket World Cup 2023 was a highly anticipated tournament that showcased top cricketing nations.

The 2023 edition of the World Cup was hosted by India, marking the first time the country exclusively hosted the event.

The tournament culminated in a thrilling final match played between the host nation, India, and Australia.

In the final, Australia emerged victorious, defeating India to secure their record-extending sixth ICC Men's Cricket World Cup title. India finished as the runner-up.

(C) England was the defending champion from the 2019 World Cup but did not reach the final in 2023.

(D) New Zealand reached the semi-finals but was defeated.

Therefore, Australia won the ICC Men's Cricket World Cup 2023.

**Final Answer : "Australia"**

**Answer: (B)**



Q40.

**Solution**

**Concept:** This question tests current affairs knowledge regarding international climate change conferences. The Conference of the Parties (COP) is the supreme decision-making body of the United Nations Framework Convention on Climate Change (UNFCCC). These annual summits are critical for global climate policy, negotiations, and commitments. Knowing the host countries for upcoming COPs is important for tracking international environmental efforts.

**Solution:** The COP summits bring together world leaders, negotiators, and civil society to address climate change. The host country plays a crucial role in facilitating discussions and pushing for climate action.

COP28 was held in 2023 in Dubai, United Arab Emirates (UAE).

The COP29 climate summit is scheduled to take place in 2024. After extensive negotiations and bidding, Azerbaijan was officially selected as the host country for COP29.

Looking ahead, Brazil is set to host COP30 in 2025.

(D) Egypt hosted COP27 in 2022 (Sharm El Sheikh).

Therefore, Azerbaijan is set to host the COP29 climate summit in 2024.

**Final Answer : “Azerbaijan”**

**Answer: (B)**



Q41.

**Solution**

**Concept:** This question delves into the fundamental aspects of the Indian Constitution, specifically the Fundamental Rights. The "Right to Constitutional Remedies" is a crucial fundamental right because it provides a mechanism for citizens to approach the Supreme Court (and High Courts) for the enforcement of all other fundamental rights, making them justiciable and enforceable. Dr. B.R. Ambedkar famously referred to this article as the "heart and soul" of the Constitution.

**Solution:** The Indian Constitution outlines a set of Fundamental Rights, which are enforceable against the State. For these rights to have any practical meaning, there must be a way to enforce them if they are violated. This enforcement mechanism is provided by the Right to Constitutional Remedies.

Let's examine the relevant articles:

(A) Article 32: This article explicitly guarantees the "Right to Constitutional Remedies." It empowers every citizen to move the Supreme Court directly for the enforcement of their Fundamental Rights. The Supreme Court, under this article, has the power to issue five types of writs: Habeas Corpus, Mandamus, Prohibition, Quo Warranto, and Certiorari, to protect these rights. This makes Fundamental Rights a guaranteed feature of the Indian Constitution.

(B) Article 19: This article deals with the "Protection of certain rights regarding freedom of speech, etc." It guarantees six fundamental freedoms to citizens, including freedom of speech and expression, assembly, association, movement, residence, and profession.

(C) Article 21: This article states "Protection of Life and Personal Liberty." It guarantees that no person shall be deprived of his life or personal liberty except according to the procedure established by law. This right has been interpreted broadly by the judiciary to include various aspects of human dignity.

(D) Article 14: This article deals with "Equality before Law" and "Equal Protection of Laws," ensuring that all persons are equal before the law and are entitled to equal protection of the laws within the territory of India.

Therefore, Article 32 of the Indian Constitution grants the Right to Constitutional Remedies.

**Final Answer : "Article 32"**

**Answer: (A)**



Q42.

**Solution**

**Concept:** This question tests knowledge of Indian history, specifically the transitional period immediately following India's independence from British rule in 1947. During this time, India remained a dominion within the British Commonwealth until its own constitution came into effect in 1950. The Governor-General was the constitutional head of state, representing the British monarch. Differentiating between British and Indian incumbents in this role is key.

**Solution:** After India gained independence on August 15, 1947, it continued to be a dominion until January 26, 1950, when it became a republic. During this interim period, the position of Governor-General of independent India was maintained.

Let's analyze the options:

- (A) Lord William Bentinck: He served as the first Governor-General of British India from 1833 to 1835. This was long before India's independence.
- (B) C. Rajagopalachari: He became the Governor-General of independent India in June 1948, succeeding Lord Mountbatten. He was the first and only Indian Governor-General and served until January 1950.
- (C) Lord Mountbatten: He was the last Viceroy of India before independence. Upon India's independence, he was appointed the first Governor-General of independent India, serving from August 1947 to June 1948. His role was crucial in facilitating the transfer of power.
- (D) Jawaharlal Nehru: He was India's first Prime Minister, the head of government, not the Governor-General.

Therefore, Lord Mountbatten was the first Governor-General of independent India.

**Final Answer : "Lord Mountbatten"**

**Answer: (C)**



Q43.

**Solution**

**Concept:** This question tests knowledge of Indian geography, specifically major dams and their corresponding rivers. Dams are vital infrastructure projects in India, built for various purposes such as irrigation, hydroelectric power generation, flood control, and water supply. Knowing the major dams and the rivers they impound is a common general knowledge topic.

**Solution:** India has a vast network of rivers, and many large dams have been constructed across them to harness water resources. The Hirakud Dam is one of the most prominent multi-purpose river valley projects.

The Hirakud Dam is located in the state of Odisha. It is built across the Mahanadi River, which is one of the major rivers of East-Central India. The dam is renowned as one of the longest earthen dams in the world. Its reservoir, also named Hirakud, is one of the largest artificial lakes in Asia.

(A) Godavari: This is a major river in South-Central India, with dams like the Sriram Sagar Project (Pochampadu Dam).

(C) Krishna: This is a significant river in peninsular India, home to dams such as the Nagarjuna Sagar Dam and Srisaïlam Dam.

(D) Kaveri: This river is crucial for the southern states, with major dams including the Krishnaraja Sagara Dam and Mettur Dam.

Therefore, the Hirakud Dam is built across the Mahanadi River.

**Final Answer :** “Mahanadi”

**Answer:** (B)



Q44.

**Solution**

**Concept:** This question tests knowledge of the Indian Constitution, specifically the Preamble, and major constitutional amendments. The 42nd Amendment Act of 1976 is particularly significant and often referred to as the 'Mini-Constitution' due to its extensive changes. One of its most notable impacts was on the Preamble, altering its philosophical scope.

**Solution:** The Preamble to the Indian Constitution is a brief introductory statement that sets out the guiding purpose and principles of the document. The original Preamble was adopted on November 26, 1949.

The 42nd Amendment Act, 1976, passed during the Emergency, brought about several changes to the Constitution. Among its most prominent changes was the amendment to the Preamble. It added three new words:

1. Socialist
2. Secular
3. Integrity

These words were added to explicitly declare India's commitment to these ideals. The Preamble now reads: "WE, THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a SOVEREIGN SOCIALIST SECULAR DEMOCRATIC REPUBLIC and to secure to all its citizens..." and "unity and integrity of the Nation."

Let's look at the options:

- (A) Sovereign, Democratic, Republic: These words were already present in the original Preamble.
- (B) Socialist, Secular, Integrity: These are the three words added by the 42nd Amendment Act.
- (C) Justice, Liberty, Equality: These are ideals enshrined in the Preamble, present since its original adoption.
- (D) Fraternity, Unity, Dignity: These concepts are also part of the original Preamble (the word "unity" was modified to "unity and integrity").

Therefore, the 42nd Amendment Act (1976) added 'Socialist', 'Secular', and 'Integrity' to the Preamble.

**Final Answer :** "Socialist, Secular, Integrity"

**Answer:** (B)



Q45.

**Solution**

**Concept:** This question relates to India's independence movement, specifically the formation and leadership of the Indian National Army (INA) during World War II. The INA played a significant, albeit controversial, role in the struggle for freedom, aligning with Axis powers to fight against British rule. Understanding the key figures involved in its establishment and subsequent leadership is crucial.

**Solution:** The Indian National Army (INA) was an armed force formed by Indian nationalists in Southeast Asia during World War II, with the aim of overthrowing British rule in India.

Let's trace its formation and leadership:

The initial idea and formation of the INA in 1942 emerged from discussions among Indian prisoners of war (POWs) of the British Indian Army captured by Japan in Malaya and Burma. Captain Mohan Singh of the British Indian Army is widely credited with the initial conceptualization and formation of the first INA in 1942. He gathered Indian soldiers after the fall of Singapore.

However, due to disagreements, this first INA eventually collapsed.

Later, Rash Behari Bose, an Indian revolutionary living in Japan, played a crucial role in reviving the Indian Independence League (IIL) and reconstituting the INA. He then handed over the leadership of the INA and the IIL to Subhas Chandra Bose in July 1943.

Subhas Chandra Bose revitalized the INA, transforming it into a more powerful and ideologically driven force, often referred to as the Azad Hind Fauj. He became its most prominent leader, rallying support for the cause of Indian independence.

The question specifically asks "Who founded the 'Indian National Army' (INA) in 1942". Given the options, Mohan Singh is the most accurate answer for the initial founding in that specific year. While Subhas Chandra Bose became its most iconic leader, he took command later in 1943. Rash Behari Bose was instrumental in its re-establishment and handing over command.

**Final Answer :** "Mohan Singh"

**Answer:** (C)



Q46.

**Solution**

**Concept:** This question tests basic knowledge of human nutrition and common deficiency diseases. Vitamins are essential micronutrients that the body needs for various physiological functions. A lack of specific vitamins can lead to distinct health problems.

**Solution:** Vitamin D is a fat-soluble vitamin that plays a crucial role in bone health by helping the body absorb calcium and phosphorus from the diet. It is also important for immune function and overall well-being.

Let's examine the diseases listed:

(A) Scurvy: This disease is caused by a deficiency of Vitamin C (Ascorbic Acid), leading to symptoms like fatigue, gum inflammation, joint pain, and poor wound healing.

(B) Rickets: This condition is caused by a severe and prolonged deficiency of Vitamin D, primarily in children. It leads to the softening and weakening of bones, causing skeletal deformities such as bowed legs, delayed growth, and skeletal pain. The adult equivalent of rickets is osteomalacia.

(C) Night Blindness: This is primarily caused by a deficiency of Vitamin A, which is essential for vision, particularly in low light conditions.

(D) Beriberi: This disease results from a deficiency of Vitamin B1 (Thiamine), affecting the cardiovascular and nervous systems, leading to symptoms like fatigue, nerve damage, and heart problems.

Therefore, the deficiency of Vitamin D leads to Rickets.

**Final Answer : "Rickets"**

**Answer: (B)**



Q47.

**Solution**

**Concept:** This question is about human eye defects and their correction using lenses, a topic in optics. Myopia (nearsightedness) is a common refractive error where light entering the eye focuses in front of the retina instead of directly on it, causing distant objects to appear blurry. Understanding the type of lens needed to correct this focal point is key.

**Solution:** Myopia occurs when the eyeball is too long or the cornea has too much curvature, causing light rays from distant objects to converge and focus \*before\* reaching the retina. To correct this, the light rays need to be diverged (spread out) slightly before they enter the eye, so that they focus precisely on the retina.

Let's analyze the types of lenses:

(A) Convex lens (converging lens): This lens is thicker in the middle and thinner at the edges. It converges (brings together) parallel light rays to a focal point. Convex lenses are used to correct hyperopia (farsightedness), where light focuses behind the retina.

(B) Concave lens (diverging lens): This lens is thinner in the middle and thicker at the edges. It diverges (spreads out) parallel light rays. By placing a concave lens in front of a myopic eye, the light rays are slightly spread out before they enter the eye, effectively shifting the focal point backward onto the retina, thus making distant objects clear.

(C) Cylindrical lens: This lens has different curvatures in different planes and is used to correct astigmatism, a condition where the cornea or lens has an irregular shape, causing blurry or distorted vision at all distances.

(D) Bifocal lens: These lenses contain two different optical powers, typically for people with presbyopia (age-related farsightedness, making near vision difficult) in addition to other refractive errors like myopia or hyperopia. They have distinct areas for distance and near vision.

Therefore, a concave lens is used to correct myopia (nearsightedness).

**Final Answer :** "Concave lens"

**Answer:** (B)



Q48.

**Solution**

**Concept:** This question tests basic knowledge of common chemical compounds and their nomenclature. Many chemical substances have a common name alongside their systematic chemical name. "Laughing gas" is a well-known example with a distinct chemical identity.

**Solution:** "Laughing gas" is a popular term for a specific chemical compound that has been used in medicine and dentistry as an anesthetic and analgesic due to its euphoric effects upon inhalation.

Let's identify its chemical name and formula:

The chemical name for laughing gas is Nitrous oxide.

Its chemical formula is  $N_2O$ .

Let's review the other options:

(A) Nitric oxide: Its chemical formula is  $NO$ . It is a signaling molecule in the body but is not known as laughing gas.

(C) Nitrogen dioxide: Its chemical formula is  $NO_2$ . It is a toxic reddish-brown gas involved in air pollution.

(D) Dinitrogen tetroxide: Its chemical formula is  $N_2O_4$ . It is a colorless gas that readily dissociates into nitrogen dioxide.

Therefore, the chemical name for laughing gas is Nitrous oxide.

**Final Answer :** "Nitrous oxide"

**Answer:** (B)



Q49.

**Solution**

**Concept:** This question tests knowledge of significant international environmental agreements, particularly those related to climate change. The Paris Agreement is a landmark treaty under the United Nations Framework Convention on Climate Change (UNFCCC) that sets out a global framework to address climate change. Knowing its adoption year is a key piece of environmental current affairs.

**Solution:** The Paris Agreement is a globally significant accord aimed at combating climate change and adapting to its effects. It represents a major step in international climate policy.

The Paris Agreement was negotiated during the 21st Conference of the Parties (COP 21) to the UNFCCC.

It was adopted by 196 Parties (countries) at a meeting in Paris, France, on December 12, 2015. The Agreement's central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. It formally entered into force on 4 November 2016.

Let's check the options:

- (A) 2012: The year of the Rio+20 Earth Summit, but not the Paris Agreement.
- (B) 2015: This is the correct year when the Paris Agreement was adopted.
- (C) 2018: A year for follow-up conferences, not the adoption.
- (D) 2020: The year the agreement's implementation phase formally began, but not its adoption.

Therefore, the Paris Agreement was adopted in 2015.

**Final Answer : "2015"**

**Answer: (B)**



Q50.

**Solution**

**Concept:** This question pertains to the structure and functioning of an ecosystem, specifically the concept of trophic levels. Trophic levels describe the position an organism occupies in a food chain. Understanding how energy flows from producers to various levels of consumers is fundamental to ecology.

**Solution:** In an ecosystem, organisms are categorized based on their feeding relationships, forming different trophic levels:

1. Producers (Autotrophs): These are organisms that produce their own food, primarily through photosynthesis (e.g., plants, algae). They form the base of the food chain.
2. Primary Consumers (Herbivores): These are organisms that feed directly on producers.
3. Secondary Consumers (Carnivores or Omnivores): These organisms feed on primary consumers.
4. Tertiary Consumers: These organisms feed on secondary consumers.
5. Decomposers: These organisms (like bacteria and fungi) break down dead organic matter from all trophic levels, returning nutrients to the ecosystem.

Let's classify the given options:

(A) Hawk: A predatory bird that typically feeds on smaller animals (e.g., rodents, birds, reptiles). Therefore, it is a secondary or tertiary consumer.

(B) Snake: A carnivore that feeds on various animals (e.g., rodents, frogs, insects). Therefore, it is typically a secondary consumer.

(C) Deer: A herbivore that feeds on plants, leaves, and other vegetation. Since it consumes producers, a deer is a primary consumer.

(D) Fungus: A decomposer that obtains nutrients by breaking down dead organic matter.

Therefore, a Deer is a primary consumer in an ecosystem.

**Final Answer : "Deer"**

**Answer: (C)**



**Answer Key**

Q	Ans	Q	Ans	Q	Ans	Q	Ans	Q	Ans
1	C	2	B	3	D	4	C	5	A
6	C	7	C	8	A	9	B	10	B
11	B	12	B	13	D	14	A	15	B
16	B	17	A	18	B	19	A	20	B
21	C	22	A	23	B	24	A	25	A
26	C	27	D	28	C	29	B	30	A
31	B	32	A	33	A	34	A	35	C
36	C	37	B	38	A	39	B	40	B
41	A	42	C	43	B	44	B	45	C
46	B	47	B	48	B	49	B	50	C

