Q1. If 36: 84 :: 42: X, then the value of X, is:

1. 18

2. 98

3. 72

4. 48

Q2. Ram purchased a watch at a cost of $\left(\frac{9}{10}\right)^{th}$ of the original cost and sold at 8% more than the original cost. His profit/loss is

1. 20% profit

2. 20% loss

3. 18% profit

4. 18% loss

**Q3.** Arrange the simple interest of the following cases in decreasing order -

(A) The simple interest on Rs 6600 at 5% per annum for 2 yrs.

(B) The simple interest on Rs 200 at 6% per annum for 5 yrs.

(C) The simple interest on Rs 840 at 5% per annum for 4 yrs.

(D) The simple interest on Rs 5000 at 12% per annum for 2 yrs.

Choose the correct answer from the options given below:

1. (A), (B), (C), (D)

2. (B), (A), (D), (C)

3. (B), (A), (C), (D)

4. (D), (A), (C), (B)

Q4. Four circles of equal radius are drawn with centers, A, B, C and D such that ABCD is a square of side 14 cm and the circles touch externally as in the figure. The area of the shaded region bounded by the 4 circles is:

(Take $\pi = \frac{22}{7}$)
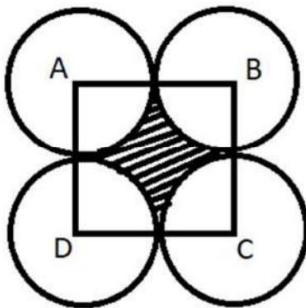
1. 24 cm²

2. 42 cm²

3. 96 cm²

4. 54 cm²

Q5. The distance between points A (-5, 7) and B (-1, 3) is:

1. 4 units

2. 6 units

3. 4√2 units

4. 7 units

Q6. The marks out of 50 obtained by 100 students in a test are given below as:

Marks obtained	20	25	28	29	33	38	42	43
Number of students	6	20	24	28	15	4	2	1

Find the value of (3 mode - 2 median).

1. 27.5

2. 31

3. 30

4. 28.8

Q7. Suppose we throw a dice once. Then, which one of the following is/are correct?

(A) The probability of getting a number greater than 4 is $\frac{1}{3}$.

(B) The probability of getting a number greater than or equal to 4 is $\frac{1}{3}$.

(C) The probability of getting a number less than or equal to 3 is $\frac{1}{2}$.

(D) The probability of getting a number less than or equal to 6 is 1.

Choose the correct answer from the options given below:

1. (A), (B) and (D) only

2. (B), (C) and (D) only

3. (A), (C) and (D) only

4. (A) and (D) only

Q8. Match List-I with List-II

List-I	List-II
(A) $^8P_3 - {}^{10}C_3$	(I) 6
(B) $^8P_5$	(II) 21
(C) $^nP_4 = 360$, then find n	(III) 216
(D) $^nC_2 = 210$, find n	(IV) 6720

Choose the correct answer from the options given below:

1. (A) - (I), (B) - (II), (C) - (III), (D) - (IV)

2. (A) - (II), (B) - (III), (C) - (IV), (D) - (1)

3. (A) - (III), (B) - (IV), (C) - (1), (D) - (II)

4. (A) - (IV), (B) - (1), (C) (II), (D) - (III)

Q9. The present age of a father is 4 years more than double the age of his son. After 10 years, the father's age is 30 years more than his son. Then the present age of father is:

1. 26 years

2. 28 years

3. 56 years

4. 60 years

Q10. The angles of elevation of the top of a tower from two points at a distance of 5 meters and 20 meters along the same straight line from the base of the tower, are complementary. Find the height of the tower.

1. 10 m

2. 15 m

3. $10\sqrt{3}$ m

4. 20 m

Q11. The base diameter of a cylinder is 21 cm and the height is 28 cm, then:

(A) Radius of cylinder $= 10.5$ cm

(B) Volume $= 12936$ cm^3

(C) Curved surface Area $= 1848$ cm^2

(D) Total surface area $= 2541$ cm^2

Which of the following is/ are correct?

Choose the correct answer from the options given below:

1. (A), (B) and (D) only

2. (A), (C) and (D) only

3. (B), (C) and (D) only

4. (A), (B) and (C) only

Q12. P and Q can complete a job in 24 days working together. P can alone complete it in 32 days. Both of them worked together for 8 days and then P left. The number of days Q will take to complete the remaining job is:

1. 26 days

2. 30 days

3. 64 days

4. 60 days

Q13. A person rows a boat 10 kms along the stream in 30 minutes and returns to the starting point in 40 minutes. The speed of the stream is:

1. 17.5 km/h

2. 2.5 km/h

3. 5 km/h

4. 15 km/h

Q14. The unit place digit of the number $(37)^2$ is:

1. 2

2. 3

3. 7

4. 9

Q15. In a flower bed there are 23 rose plants in the first row, 21 in the second, 19 in the third and so on. There are 5 rose plants in the last row. Then the number of rows in the flower bed is:

1. 5

2. 10

3. 15

4. 20

**Q16.** Find the term which doesn't fit into the series given below:

**H4Q, K10N, N20K, Q43H, T90E**

1. H4Q

2. K10N

3. Q43H

4. T90E

Q17. Given figure is embedded in any one of the four option figures. Find the option figure which contains the given figure as its part.

1.

2.

3.

4.
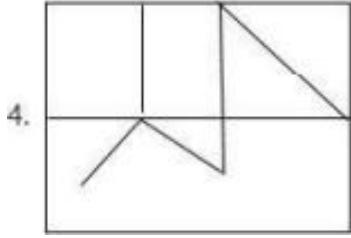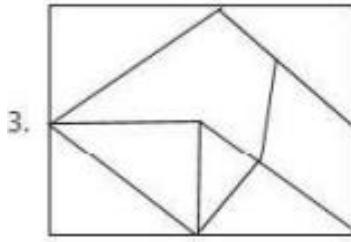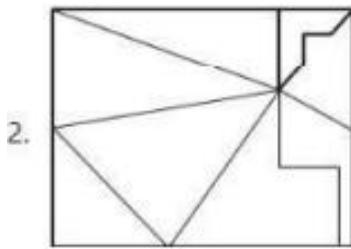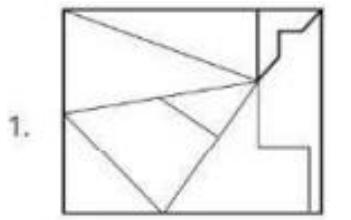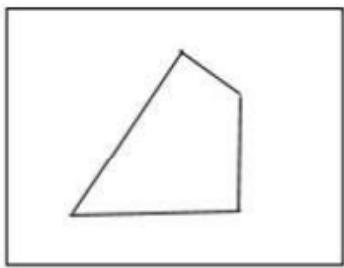
Q18. A clock is set right at 5 a.m. The clock loses 16 minutes in 24 hours. What will be the correct approximate time when the clock indicates 10 p.m. on 4th day?

1. 11 p.m

2. 9 p.m

3. 11 a.m

4. 11.30 p.m

Q19. If 1st July 2022 was Sunday, then what was the day on 1st November 2022?

1. Monday

2. Tuesday

3. Thursday

4. Friday

Q20. Complete the following figure matrix.

1.

2.

3.

4.
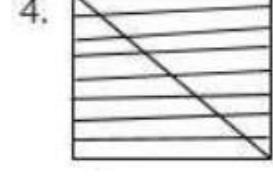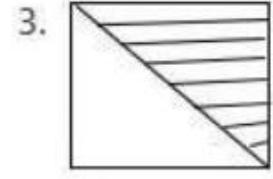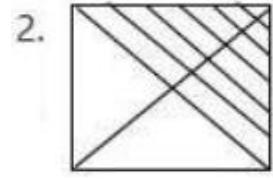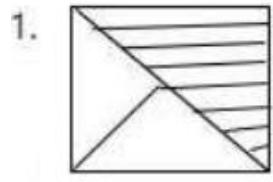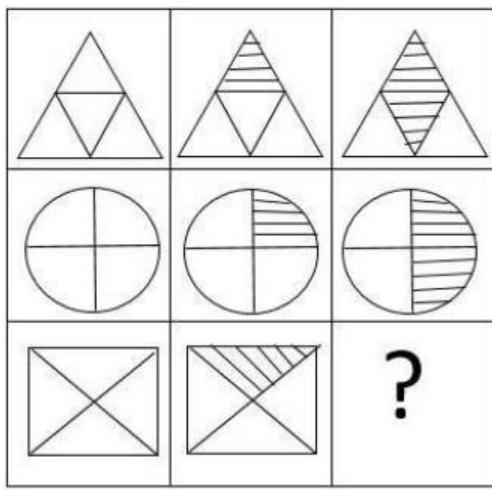
Q21. If A + B means A is the brother of B; A* B means A is the sister of B; A # B means A is the daughter of B and A-B means A is the wife of B, then in the expression U # C- D + H+ T, how is H related to U?

1. Father

2. Uncle

3. Aunt

4. Brother

Q22. Choose the correct mirror image of fig(x), when mirror is placed at the right side.

Fig(x)

1.

2.

3.

4.
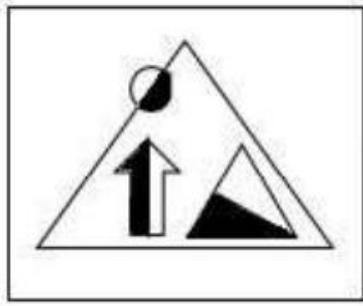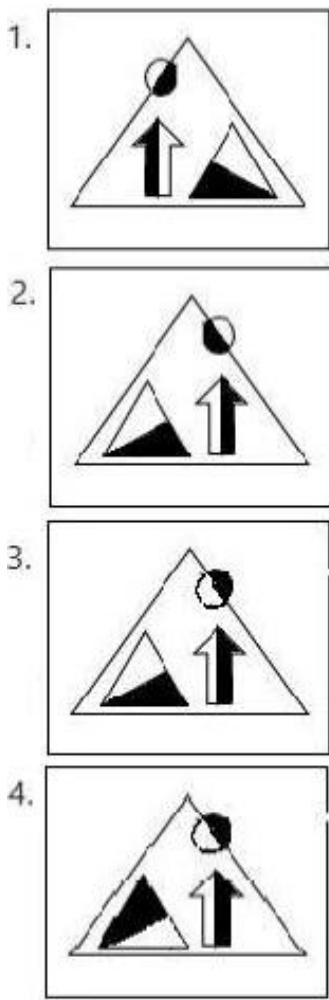
Q23. In a certain code, ALPHABET is written as TEBAHPLA. How is DECIPHER written in that code?

1. REPHCIED

2. REPHICED

3. REIPHCED

4. REHPICED

Q24. In the following options, four words have been given, out of which three are alike in some manner, while the fourth one is different. Choose out the odd one.

1. Milk

2. Water

3. Oil

4. Sugar

Q25. A girl walks 20 meters towards North. Then, turning to her left, she walks 50 meters. Then, turning to her right, she walks 40 metres. Again, she turns to her right and walks 50 metres. How far is she from her initial position?

1. 60 metres

2. 50 metres

3. 20 metres

4. 40 metres

Q26. Thirty children are standing in a row facing North. If in this row Neelam is seventeenth from the left then what is the position of Neelam from the right?

1. 17

2. 13

3. 14

4. 15

Q27. What will come in place of the question mark in the following numerical series?

6, 9, 14, 21, 30, ?

1. 36

2. 41

3. 62

4. 59

Q28. Find the missing number from the given alternatives.

6	10	14
9	15	21
12	20	?

1. 28

2. 36

3. 42

4. 43

Q29. Seven people T, U, V, W, X, Y & Z are standing in a single line facing a milk - booth. X is somewhere ahead of Y. There is exactly one person standing between V and Z. W is immediately behind T. Y is behind both U & W. If W & V are fourth and fifth in line respectively, then whish of the following must be true?

1. T is first

2. Z is first

3. Y is sixth

4. Y is seventh

Q30. Select the figures which, when fitted with each other, will form a complete square.

(A)

(B)

(C)

(D)
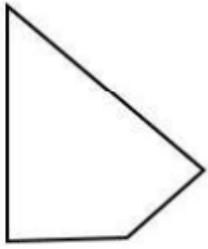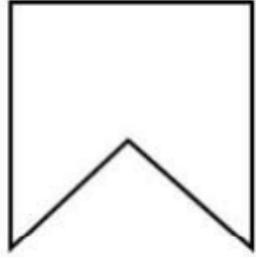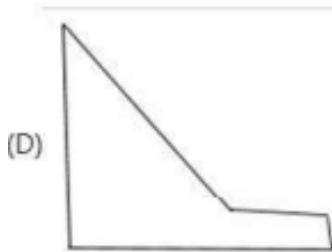
Q31. The first Indigenous vaccine of COVID-19 developed in India was....

1. COVAXIN

2. COVISHIELD

3. SPUTNIK-V

4. MODERNA

Q32. Kinematics deal with the

1. Motion of an object

2. Material property of an object

3. Elastic property of an object

4. Optical property of an object

Q33. The gas which is used to make chloroform is

1. Cyanogen

2. Radon

3. Propane

4. Methane

Q34. The first Tirthankara in Jainism is believed to be......

1. Arishtanemi

2. Sambhunath

3. Rishabhnath

4. Mahavira

Q35. The Ilbari dynasty is famously known as

1. The Slave Dynasty

2. The Khilji Dynasty

3. The Tughlaq Dynasty

4. The Lodhi Dynasty

Q36. The slogan, 'Swaraj is my birthright and I shall have it' is associated with

1. The Khilafat Movement

2. The Poona Pact

3. Civil Disobedience Movement

4. Home Bule Movement

Q37. Which of the following statements is incorrect for Chandrayaan-3?

1. Launched from Vikram Sarabhai Space Centre on July 14, 2023

2. India became the 4th country to land on the Moon.

3. It consists of a lunar lander named Vikram and a rover named Pragyan.

4. It became the first mission to land near the lunar South Pole.

Q38. The IUCN Red List is a catalogue of –

1. Species threatened with risk of extinction

2. Red Sea

3. Hot Springs

4. Rivers

Q39. Match List-I with List-II

List-I	List-II
Author	Novel/Play
(A) William Shakespeare	(I) Man of Destiny
(B) Lewis Carroll	(II) The Tempest
(C) E. M. Forster	(III) Through the Looking Glass

| (D) Bernard Shaw | (IV) A Passage to India |

Choose the correct answer from the options given below:

1. (A) – (I), (B) – (II), (C) – (III), (D) – (IV)

2. (A) – (II), (B) – (III), (C) – (IV), (D) – (I)

3. (A) – (II), (B) – (III), (C) – (I), (D) – (IV)

4. (A) – (III), (B) – (IV), (C) – (I), (D) – (II)

Q40. In humans, calcium plays a role in

(A) Bone formation

(B) Blood clotting

(C) Muscle function

(D) Blood formation

Choose the correct answer from the options given below:

1. (A), (B) and (D) only

2. (A), (B) and (C) only

3. (A), (B), (C) and (D)

4. (B), (C) and (D) only

Q41. Arrange the sequence of national events in the order of their occurrence.

(A) Swachh Bharat Abhiyaan

(B) Mars Orbiter Mission

(C) Right to Information Act

(D) Economic Liberalization

Choose the correct answer from the options given below:

1. (A), (B), (C), (D)

2. (B), (A), (C), (D)

3. (B), (A), (D), (C)

4. (D), (C), (B), (A)

Q42. Arrange the following international events in chronological sequence of their occurrence.

(A) Fall of the Berlin Wall

(B) Apartheid ends in South Africa

(C) Adoption of Sustainable Development Goals by UN Member States.

(D) Establishment of the United Nations

Choose the correct answer from the options given below:

1. (A), (B), (C), (D)

2. (B), (A), (C), (D)

3. (B), (A), (D), (C)

4. (D), (A), (B), (C)

Q43. The strait that separates the North Andaman islands from the group of islands of Myanmar is

1. Andaman Strait

2. Coco Strait

3. Preparis Strait

4. Cabot Strait

Q44. Article 9 of the Indian Constitution deals with

1. Persons who migrated to India from Pakistan

2. Indians who reside outside India

3. Persons who voluntarily acquire foreign citizenship

4. Right to citizenship at the commencement of the constitution

Q45. The main purpose of the Goods and Services Tax (GST) compensation fund is

1. To provide funding for infrastructure development.

2. To provide relief to taxpayers who have paid excess tax.

3. To support the development of micro, small and medium enterprises (MSMEs)

4. To compensate states for the loss of revenue due to the implementation of GST.

Q46. Clouds are the masses of small water droplets or tiny ice crystals.

(A) Clouds are classified according to their appearance and height.

(B) Cirrus clouds are high altitude clouds, which are usually feathery shaped and composed entirely of ice crystals.

(C) Nimbostratus clouds are mid level clouds producing sporadic rain.

(D) Altocumulus are the heap-like clouds having flat bases and rounded tops.

Choose the correct answer from the options given below:

1. (A), (B) and (D) only

2. (A), (B) and (C) only

3. (B), (C) and (D) only

4. (A), (C) and (D) only

Q47. Aizawl is the capital of

1. Meghalaya

2. Nagaland

3. Mizoram

4. Tripura

Q48. Match List-I with List-II

Match the countries with their respective currencies:

List-I	List-II
Country	Currency
(A) Japan	(I) Krone
(B) Russia	(II) Yen
(C) China	(III) Ruble
(D) Norway	(IV) Yuan

Choose the correct answer from the options given below:

1. (A) – (IV), (B) – (II), (C) – (III), (D) – (I)

2. (A) – (II), (B) – (III), (C) – (IV), (D) – (I)

3. (A) – (I), (B) – (III), (C) – (IV), (D) – (II)

4. (A) – (III), (B) – (IV), (C) – (I), (D) – (II)

Q49. The river which flows through the Grand Canyon of India, also known as the Gandikota Gorge is

1. Ganga

2. Krishna

3. Penna

4. Brahmaputra

Q50. The National Emblem of India has been adopted from the capital of King _____ which was situated in _____ .

1. Akbar, Agra

2. Ashoka, Sarnath

3. Ashoka, Sanchi

4. Akbar, Delhi

Solution

Q1.

Ans.

Step 1. Recall the meaning of proportion

The notation **A : B :: C : D** means

$$\frac{A}{B} = \frac{C}{D}$$

or equivalently

$$A \times D = B \times C$$

Step 2. Substitute given numbers

$$36 : 84 :: 42 : X \Rightarrow 36 \times X = 84 \times 42$$

Step 3. Solve for X

$$X = \frac{84 \times 42}{36}$$

Now calculate carefully:

- $84 \div 12 = 7$
- $36 \div 12 = 3$

So:

$$X = \frac{7 \times 42}{3} = 7 \times 14 = 98$$

☑ **Final Answer: X = 98**

Correct Option: 2)

Q2.

Ans.

Step 1. Assume the original cost = ₹100

Then:

- Cost Price (CP) = (9/10) × 100 = ₹90
- Selling Price (SP) = 8% more than the original cost

  → SP = 100 + 8 = ₹108

Step 2. Find profit or loss

Profit = SP − CP

Profit = 108 − 90 = ₹18

Since profit is positive, it's a **profit.**

Step 3. Find profit percentage

Profit % = (Profit / CP) × 100

Profit % = (18 / 90) × 100 = 20%

☑ **Final Answer: 20% Profit**

Correct Option: 1)

Q3.

Ans.

Step 1: Formula

$$\text{Simple Interest (S.I.)} = \frac{P \times R \times T}{100}$$

Step 2: Calculate S.I. for each case

(A) $\quad S.I._A = \dfrac{6600 \times 5 \times 2}{100} = \dfrac{66000}{100} = ₹660$

(B) $\quad S.I._B = \dfrac{200 \times 6 \times 5}{100} = \dfrac{6000}{100} = ₹60$

(C) $\quad S.I._C = \dfrac{840 \times 5 \times 4}{100} = \dfrac{16800}{100} = ₹168$

(D) $\quad S.I._D = \dfrac{5000 \times 12 \times 2}{100} = \dfrac{120000}{100} = ₹1200$

Step 3: Arrange in decreasing order

Case	Simple Interest (₹)
(D)	1200
(A)	660
(C)	168
(B)	60

→ **Decreasing order:** (D), (A), (C), (B)

✓ **Final Answer:** **(D), (A), (C), (B)**

Correct Option: 4)

Q4.

Ans.

Step 1. Understand the geometry

- The centers of the circles (A, B, C, D) form a square of side **14 cm**.
- The circles **touch externally**, so the **distance between the centers of any two adjacent circles = 2r**, where r = radius of each circle.

Thus,

$$AB = 2r = 14$$

$$\Rightarrow r = 7 \, \text{cm}$$

Step 2. Visualize the shaded region

- The shaded region lies **inside the square** but **outside the quarter-circles** drawn at each corner.
- So, the **area of the shaded region = Area of square – Area of 4 quarter-circles.**

Step 3. Find each area

(a) Area of square

$$\text{Area of square} = (\text{side})^2 = 14^2 = 196 \text{cm}^2$$

(b) Area of 4 quarter-circles

Each quarter circle has radius = 7 cm.

Four quarter-circles together make **one full circle** (because $4 \times \frac{1}{4} = 1$).

$$\text{Area of 4 quarter-circles} = \pi r^2 = \frac{22}{7} \times 7 \times 7 = 154\,\text{cm}^2$$

Step 4. Shaded region

$$\text{Shaded area} = \text{Area of square} - \text{Area of 4 quarter-circles}$$

$$= 196 - 154 = 42\text{cm}^2$$

✅ **Final Answer: 42 cm²**

Correct Option: 2)

Q5.

Ans.

Step 1. Recall the Distance Formula

$$\text{Distance} = \sqrt{(x_2 - x_1)^2 + (y_2 - y_1)^2}$$

Here:

$$A(x_1, y_1) = (-5, 7)$$
$$B(x_2, y_2) = (-1, 3)$$

Step 2. Substitute the values

$$\text{Distance} = \sqrt{((-1) - (-5))^2 + (3 - 7)^2}$$

Simplify step by step:

$$= \sqrt{(-1 + 5)^2 + (-4)^2}$$

$$= \sqrt{(4)^2 + (4)^2}$$

$$= \sqrt{16 + 16}$$

$$= \sqrt{32}$$

$$= 4\sqrt{2}$$

✅ **Final Answer: 4√2 units**

Correct Option: 3)

Q6.

Ans.

Step 1. Verify total frequency

$$6 + 20 + 24 + 28 + 15 + 4 + 2 + 1 = 100$$

Total students = 100 (correct)

Step 2. Find the Mode

- Mode = value having **maximum frequency**.
- Maximum frequency = **28**, corresponding to **marks = 29**.

$$\text{Mode} = 29$$

Step 3. Find the Median

For **N = 100**,

$$\text{Median position} = \frac{N+1}{2} = \frac{101}{2} = 50.5^{th} \text{ value}$$

Now we find which mark corresponds to this position.

Marks	20	25	28	29	33	38	42	43
Frequency	6	20	24	28	15	4	2	1
Cumulative frequency	6	26	50	78	93	97	99	100

- The **50th** value is at marks = **28**,
- The **51st** value is at marks = **29**.

So,

$$\text{Median} = \frac{28+29}{2} = 28.5$$

Step 4. Calculate (3 Mode – 2 Median)

$$= 3(29) - 2(28.5)$$

$$= 87 - 57 = 30$$

✅ **Final Answer: 30**

Correct Option: 3)

Q7.

Ans.

Given: A fair die (faces 1 to 6) is thrown once.

Total outcomes = 6.

For any event E, $P(E) = \dfrac{\text{favourable outcomes}}{\text{total outcomes}}$.

(A) Number greater than 4

Outcomes: {5, 6} → 2 outcomes

$P = \frac{2}{6} = \frac{1}{3}$.

✅ True

(B) Number greater than or equal to 4

Outcomes: {4, 5, 6} → 3 outcomes

$P = \frac{3}{6} = \frac{1}{2}$ (not $\frac{1}{3}$).

❌ False

(C) Number less than or equal to 3

Outcomes: {1, 2, 3} → 3 outcomes

$P = \frac{3}{6} = \frac{1}{2}$.

✅ True

(D) Number less than or equal to 6

Outcomes: {1, 2, 3, 4, 5, 6} → all 6 outcomes

$P = \frac{6}{6} = 1$.

✅ True

✅ **Final Answer:** True statements: **(A), (C), (D)**

Correct Option: 3)

Q8.

Ans.

Step 1. Write the given data

List–I	Expression	To Find
(A)	$^{8}P_3 - {}^{10}C_3$	Value
(B)	$^{8}P_5$	Value
(C)	$^{n}P_4 = 360$	Find n
(D)	$^{n}C_2 = 210$	Find n

Step 2. Solve each one

(A) $^{8}P_3 - {}^{10}C_3$

$$^{8}P_3 = 8 \times 7 \times 6 = 336$$

$$^{10}C_3 = \frac{10 \times 9 \times 8}{3 \times 2 \times 1} = 120$$

$$^{8}P_3 - {}^{10}C_3 = 336 - 120 = 216$$

So, (A) → (III) 216

(B) $^{8}P_5$

$$^{8}P_5 = 8 \times 7 \times 6 \times 5 \times 4 = 6720$$

So, (B) → (IV) 6720

(C) $^{n}P_4 = 360$

Formula:

$$^{n}P_4 = n \times (n-1) \times (n-2) \times (n-3)$$

Try n = 6:

$$6 \times 5 \times 4 \times 3 = 360$$

Hence, n = 6

So, (C) → (I) 6

(D) $^nC_2 = 210$

Formula:

$$^nC_2 = \frac{n(n-1)}{2}$$

$$\frac{n(n-1)}{2} = 210 \Rightarrow n(n-1) = 420$$

Try $n = 21$:

$$21 \times 20 = 420$$

Hence, n = 21

So, (D) → (II) **21**

Step 3. Final Matching Table

List–I	Matches	List–II
(A)	(III)	216
(B)	(IV)	6720
(C)	(I)	6
(D)	(II)	21

✔ **Final Answer:** (A)-(III), (B)-(IV), (C)-(I), (D)-(II)

Correct Option: 3)

Q9.

Ans.

Step 1. Let the son's present age = x years

Then, father's present age = 2x + 4 years

(because father is 4 years more than double the son's age)

Step 2. After 10 years:

- Son's age = $x + 10$
- Father's age = $2x + 4 + 10 = 2x + 14$

Given:

Father's age will be 30 years more than the son's age.

$$2x + 14 = (x + 10) + 30$$

Step 3. Simplify the equation

$$2x + 14 = x + 40$$

$$2x - x = 40 - 14$$

$$x = 26$$

Step 4. Find father's present age

$$\text{Father's age} = 2x + 4 = 2(26) + 4 = 52 + 4 = 56$$

Father's present age = 56 years

✅ **Final Answer: 56 years**

Correct Option: 3)

Q10.

Ans.

Step 1. Let the height of the tower = h meters

Let the angle of elevation from the point 5 m be θ

Then, from the point 20 m, the angle of elevation will be $(90° - θ)$

(since they are complementary)

Step 2. Write the tan formulas

For the first point (distance = 5 m):

$$\tan\theta = \frac{h}{5} \quad ...(1)$$

For the second point (distance = 20 m):

$$\tan(90° - \theta) = \frac{h}{20} \quad ...(2)$$

Step 3. Use the identity:

$$\tan(90° - \theta) = \cot\theta$$

So, from equation (2):

$$\cot\theta = \frac{h}{20}$$

But we know that $\cot\theta = \frac{1}{\tan\theta}$

So,

$$\frac{1}{\tan\theta} = \frac{h}{20}$$

Step 4. Substitute

$\tan\theta = \frac{h}{5}$ **from (1):**

$$\frac{1}{\frac{h}{5}} = \frac{h}{20}$$

Simplify:

$$\frac{5}{h} = \frac{h}{20}$$

Step 5. Cross multiply:

$$5 \times 20 = h \times h$$

$$h^2 = 100$$

$$h = 10$$

Height of the tower $= 10$ meters

☑ **Final Answer: 10 m**

Correct Option: 1)

Q11.

Ans.

Step 1. Radius from diameter

Diameter = 21 cm →

- Radius $r = \frac{21}{2} = 10.5$ cm

✅ (A) correct

Step 2. Volume

Formula: $V = \pi r^2 h$, with $h = 28$ cm and $\pi = \frac{22}{7}$

- $V = \frac{22}{7} \times (10.5)^2 \times 28 = \frac{22}{7} \times 110.25 \times 28$
- $= \frac{22}{7} \times 3087 = 441 \times 22 = 9702$ cm^3

Given 12936 cm^3 → doesn't match

❌ (B) incorrect

Step 3. Curved Surface Area (CSA)

Formula: $\mathrm{CSA} = 2\pi r h$

- $= 2 \times \frac{22}{7} \times 10.5 \times 28 = 1848$ cm^2

✅ (C) correct

Step 4. Total Surface Area (TSA)

Formula: $\mathrm{TSA} = \mathrm{CSA} + 2\pi r^2$

- $2\pi r^2 = 2 \times \frac{22}{7} \times (10.5)^2 = 693$ cm^2
- $\mathrm{TSA} = 1848 + 693 = 2541$ cm^2

✅ (D) correct

✅ **Final Answer:** Correct statements are **(A), (C) and (D)**.

Correct Option: 2)

Q12.

Ans.

Step 1. Let total work = 1 unit (the whole job)

P and Q together finish the job in 24 days →

1 day's work of (P + Q) = 1/24

P alone can do the job in 32 days →

1 day's work of P = 1/32

Step 2. Find Q's 1 day work

$$\frac{1}{24} = \frac{1}{32} + \frac{1}{Q}$$

$$\frac{1}{Q} = \frac{1}{24} - \frac{1}{32}$$

Take LCM = 96

$$\frac{1}{Q} = \frac{4-3}{96} = \frac{1}{96}$$

✅ So, **Q alone can do the work in 96 days**

Step 3. Work done together in 8 days

$$\text{Work done in 1 day by (P+Q)} = \frac{1}{24}$$

$$\text{Work done in 8 days} = 8 \times \frac{1}{24} = \frac{1}{3}$$

✅ Work remaining = $1 - \frac{1}{3} = \frac{2}{3}$

Step 4. Time taken by Q alone to finish remaining work

Q's 1 day work = $\frac{1}{96}$

$$\text{Days required} = \frac{\text{Remaining work}}{\text{Q's 1-day work}} = \frac{\frac{2}{3}}{\frac{1}{96}} = \frac{2}{3} \times 96 = 64 \text{ days}$$

✅ Q will take 64 days to finish the remaining work.

✅ **Final Answer: 64 days**

Correct Option: 3)

Q13.

Ans.

Step 1. Given data

- Distance each way = 10 km
- Downstream time = 30 min = ½ hr
- Upstream time = 40 min = ⅔ hr

Let:

- Speed of boat in still water = b km/h
- Speed of stream = s km/h

Step 2. Use the formulas

Downstream speed = $b + s$

Upstream speed = $b - s$

$$\text{Downstream: } \frac{10}{b+s} = \frac{1}{2}$$

$$\Rightarrow b + s = 20$$

$$\text{Upstream: } \frac{10}{b-s} = \frac{2}{3}$$

$$\Rightarrow b - s = 15$$

Step 3. Solve for b and s

Add the two equations:

$$(b+s) + (b-s) = 20 + 15 \Rightarrow 2b = 35 \Rightarrow b = 17.5$$

Substitute into first:

$$17.5 + s = 20 \Rightarrow s = 2.5$$

☑ **Final Answer:** Speed of stream = 2.5 km/h

Correct Option: 2)

Q14.

Ans.

Step 1. To find the **unit place digit**, we only need to look at the **unit digit** of the number being squared.

For 37^2, the unit digit of 37 is **7**.

Step 2. Now find the unit digit of 7^2

$$7^2 = 49$$

→ The unit digit is 9.

☑ **Final Answer: 9**

Correct Option: 4)

Q15.

Ans.

Step 1. The number of rose plants in each row forms an arithmetic sequence: 23, 21, 19, ..., 5

Step 2. Let the number of rows be n.

Here, first term $a = 23$, common difference $d = -2$, and last term $l = 5$.

Step 3. Use the nth term formula:

$$a_n = a + (n - 1)d$$

Substitute the given values:

$$5 = 23 + (n - 1)(-2)$$

Step 4. Simplify:

$$5 = 23 - 2n + 2$$

$$5 = 25 - 2n$$

$$2n = 20$$

$$n = 10$$

☑ **Final Answer: 10 rows**

Correct Option: 2)

Q16.

Ans.

Step 1. Observe the letter pattern

First letters: H → K → N → Q → T

Each time, letters increase by **+3** in the alphabet:

H(8) +3 = K(11), +3 = N(14), +3 = Q(17), +3 = T(20)

Last letters: Q → N → K → H → E

Each time, letters decrease by **−3** in the alphabet:

Q(17) −3 = N(14), −3 = K(11), −3 = H(8), −3 = E(5)

☑ So, all terms **follow the correct letter pattern.**

Step 2. Observe the numbers

Numbers are: 4, 10, 20, 43, 90

Let's see their growth:

- 4 → 10 (×2.5)
- 10 → 20 (×2)
- 20 → 43 (×2.15)
- 43 → 90 (×2.1)

The first three follow a **near-doubling pattern**, but the jump from **20 → 43** looks slightly inconsistent (expected ≈ 40).

Thus, **Q43H** breaks the smooth numeric trend.

☑ **Final Answer: Q43H**

Correct Option: 3)

Q17.

Ans.

Step 1. Observe the given figure:

- The figure is a **four-sided shape (quadrilateral)**.
- Its sides are as follows:
    - **Bottom:** short and almost horizontal
    - **Right side:** nearly vertical
    - **Top:** short slanting line towards left
    - **Left side:** long slant joining back to the base

☑ This makes a unique **slanted quadrilateral** shape.

Step 2. Compare with the option figures:

1. **Option (1):** Has extra small shapes and corners — not matching the simple four-sided outline ✗

2. **Option (2):** All lines meet at one central point — no distinct closed shape like the given one ✗

3. **Option (3):** Clearly contains the **same four sides** — a short horizontal base, vertical right, small top slant, and long left slant. Matches perfectly ☑

4. **Option (4):** Bottom part forms a V shape; no long single slant as in given figure ✗

Step 3. Conclusion

The **given shape is clearly visible as part of Option (3).**

☑ **Final Answer:** The given figure is embedded in **Option (3)**
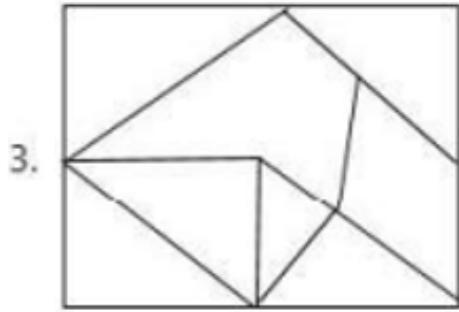
Correct Option: 3)

Q18.

Ans.

Step 1. Understand the problem

- Clock was **correct at 5 a.m. on Day 1**.

- It loses **16 minutes per day (24 hours)**.

- So, after some real time, the clock will **show less time** than actual.

Step 2. Calculate total time passed according to the clock

From **5 a.m. (Day 1)** to **10 p.m. (Day 4)** =

- 3 full days $= 3 \times 24 = 72$ hours

- Plus from 5 a.m. to 10 p.m. on 4th day $= 17$ hours

  Total time shown by clock $= 72 + 17 = 89$ **hours**

Step 3. Find how much real time has passed

In **24 hours real time**, the clock shows **24 hours − 16 minutes**
i.e., clock runs for only

$$24 - \frac{16}{60} = 23\frac{44}{60} = 23.7333 \text{ hours}$$

Now, if the clock shows **89 hours**,

actual time passed $=$

$$\frac{24}{23.7333} \times 89 = 1.0112 \times 89 \approx 90 hours$$

Actual time passed = 90 hours

Step 4. Find the correct actual time

If actual time passed $= 90$ hours,

add 90 hours to **5 a.m. (Day 1)**:

90 hours $= 3$ days $+ 18$ hours

$\rightarrow$ After 3 days $\rightarrow$ 5 a.m. (Day 4)

$\rightarrow +18$ hours $\rightarrow$ **11 p.m. (Day 4)**

Correct actual time = 11 p.m.

✅ **Final Answer: 11 p.m**

Correct Option: 1)

Q19.

Ans.

Step 1. Count the days from 1 July to 1 November 2022

- July $\rightarrow$ 31 days

- August $\rightarrow$ 31 days

- September → 30 days

- October → 31 days

Total = 31 + 31 + 30 + 31 = 123 days

Step 2. Convert total days into weeks + extra days

123 ÷ 7 = 17 weeks and **4 extra days**

(Only the remainder matters for the weekday.)

So, the day will be **4 days ahead** of Sunday.

Step 3. Move 4 days forward from Sunday

Sunday → Monday (1) → Tuesday (2) → Wednesday (3) → **Thursday (4)**

Therefore, 1 November 2022 was Thursday.

☑ **Final Answer: Thursday**

Correct Option: 3)

Q20.

Ans.

Step 1. Observe the given figure:

It is a **four-sided shape (quadrilateral)** having —

- one **short horizontal base**,

- one **vertical right side**,

- one **small slant on top**, and

- one **long slanting left side**.

Step 2. Compare with each option:

- **Option 1:** Has extra corners, doesn't match ✗

- **Option 2:** All lines meet at one point, doesn't match ✗

- **Option 3:** Contains the same four sides — short base, vertical right, slanted top, and long left side ☑

- **Option 4:** Bottom is V-shaped, doesn't match ✗

☑ Final Answer: The given figure is in Option 3

3.
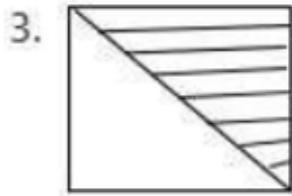
Correct Option: 3)

Q21.

Ans.

Step 1. Decode each symbol

- **A + B** → A is **brother** of B
- **A * B** → A is **sister** of B
- **A # B** → A is **daughter** of B
- **A − B** → A is **wife** of B

Step 2. Read the chain: U # C − D + H + T

1. **U # C** → U is the **daughter** of C.
2. **C − D** → C is the **wife** of D ⇒ D is U's **father**.
3. **D + H** → D is **brother** of H ⇒ H is sibling of D.
4. **H + T** → H is **brother** of T ⇒ H is **male**.

Step 3. Conclude H's relation to U

- D is U's **father**.
- H is **brother of D** (male).

    ⇒ H is U's **paternal uncle**.

✅ **Final Answer: Uncle**

Correct Option: 2)

Q22.

Ans.

Step 1. Understand the mirror position

The **mirror is placed on the right side**, so the figure will be **flipped left to right** (like seeing your reflection in a mirror).

👉 The **right side becomes left**, and the **left side becomes right**.

👉 The **top and bottom** parts remain the **same**.

Step 2. Observe Fig(x)

Inside the triangle:

- A **black circle** is on the **top-left** corner.

- A **black small triangle** is on the **bottom-right** corner.

- An **upward arrow** is in the **center**.

Step 3. Draw the mirror image in mind

After the mirror flip:

- The **black circle** that was on the **left** will now appear on the **right**.

- The **black small triangle** that was on the **right** will now appear on the **left**.

- The **arrow** in the center remains the same because it's vertically symmetrical.

Step 4. Match with the given options

- **Option 1:** Circle on left ✖

- **Option 2:** Circle on left ✖

- **Option 3:** Circle on right, triangle on left, arrow same ☑

- **Option 4:** Circle on right but arrow incorrect ✖

☑ **Final Answer: Mirror image is shown in Option 3**

Correct Option: 3)

Q23.

Ans.

Step 1. Identify the coding rule

ALPHABET → TEBAHPLA

This is simply the **reverse** of the word (last letter becomes first, etc.).

Step 2. Apply the same rule to DECIPHER

Write DECIPHER in reverse order:

D E C I P H E R → **R E H P I C E D**

☑ **Final Answer: REHPICED**

Correct Option: 4)

Q24.

Ans.

Step 1. Observe the items by physical state at room temperature

- **Milk** – liquid
- **Water** – liquid
- **Oil** – liquid
- **Sugar** – solid (crystals)

Step 2. Identify the odd one

Three are **liquids**, while **Sugar** is a **solid** → hence different.

☑ **Final Answer: Sugar**

Correct Option: 4)

Q25.

Ans.

Step 1. Trace the path step-by-step

1. The girl walks **20 m North.**

→ From starting point O(0, 0) to A(0, 20).

2. Turns **left** (from North → West) and walks **50 m.**

→ From A(0, 20) to B(−50, 20).

3. Turns **right** (from West → North) and walks **40 m.**

→ From B(−50, 20) to C(−50, 60).

4. Turns **right** again (from North → East) and walks **50 m.**

→ From C(−50, 60) to D(0, 60).

Step 2. Find distance from starting point to final point

Starting point = O(0, 0)

Final point = D(0, 60)

$$\text{Distance} = \sqrt{(0-0)^2 + (60-0)^2} = \sqrt{3600} = 60 \text{ metres}$$

Step 3. Interpretation

She ends **directly north** of her starting point, **60 m away.**

☑ **Final Answer: 60 metres**

Correct Option: 1)

Q26.

Ans.

Step 1. Given information

- Total children = **30**

- Neelam's position from **left = 17th**

We need to find her position from the **right end.**

Step 2. Apply the formula

$$\text{Position from right} = \text{Total} - \text{Position from left} + 1$$

Substitute:

$$= 30 - 17 + 1$$

$$= 14$$

☑ **Final Answer: 14**

Correct Option: 3)

Q27.

Ans.

Step 1. Write the given series

6, 9, 14, 21, 30, ?

Step 2. Find the differences between consecutive terms

$9 - 6 = 3$
$14 - 9 = 5$
$21 - 14 = 7$
$30 - 21 = 9$

So, the differences are **3, 5, 7, 9** — consecutive odd numbers.

Step 3. Continue the pattern

Next difference = next odd number = **11**

Add this to the last term:

$30 + 11 = $ **41**

☑ Final Answer: 41

Correct Option: 2)

Q28.

Ans.

Step 1. Write the numbers clearly in a 3 × 3 grid

6	10	14
9	15	21
12	20	?

Step 2. Observe the pattern across columns

Column 1: 6 → 9 → 12 → (each +3)

Column 2: 10 → 15 → 20 → (each +5)

Column 3: 14 → 21 → ?

Here, 14 → 21 = +7,

so, continue by adding +7 again:

$21 + 7 = \textbf{28}$

Step 3. Verify the consistency

Each column increases by a constant difference:

$(+3), (+5), (+7)$ — consistent arithmetic pattern.

☑ **Final Answer: 28**

Correct Option: 1)

Q29.

Ans.

Step 1. Fix the given positions

- **W & V** are **4th** and **5th** respectively $\Rightarrow$ W = 4, V = 5.
- **W is immediately behind T** $\Rightarrow$ T must be just before W $\Rightarrow$ **T = 3**.

Step 2. Use "one person between V and Z"

- With V at 5, Z must be **3** or **7** (positions 5 ± 2).
- Position 3 is already taken by T $\Rightarrow$ **Z = 7**.

Step 3. Place Y using "Y is behind U and W"

- Y must be **after** both U and W. Since W is at 4, Y must be **> 4**.
- The only positions after 4 that are free: **6** (because 5 is V and 7 is Z). $\Rightarrow$ **Y = 6**.

Step 4. Check X's condition

- **X is ahead of Y** $\Rightarrow$ X is before 6, which is possible. (U takes the remaining open spot before 6.)

Thus, the statement that **must** be true is **Y is sixth**.

☑ **Final Answer: Y is sixth**

Correct Option: 3)

Q30.

Ans.

Step 1. Observe each figure carefully

- **Figure (A):** Upper-left shape with a slanting edge.
- **Figure (B):** A large shape with an inward V at the bottom (looks like the main square body).
- **Figure (C):** Small upper-right piece with a matching slant edge.
- **Figure (D):** Lower-right piece with a matching slant edge at the bottom.

Step 2. Mentally fit the pieces

- **(B)** forms the main base of the square (the biggest piece).
- **(A)** fits perfectly on the **top-left** side of (B).
- **(C)** fits to the **top-right** side of (B).
- **(D)** fits to the **bottom-right** portion, completing the missing section of the square.

Step 3. Verify combinations

By visual matching:

- (A), (B), and (C) together form most of the square but leave a small open section.
- Adding (D) completes the square fully.

Therefore, the combination of **(A), (B), (C), and (D)** forms a complete square.

☑ **Final Answer: (A), (B), (C), and (D)**

Correct Option: 3)

Q31.

Ans.

Step 1. Read the question carefully

The question asks for the **first Indigenous (made in India)** COVID-19 vaccine.

Step 2. Check each option

1. **COVAXIN** – Developed **indigenously in India** by **Bharat Biotech** in collaboration with the **Indian Council of Medical Research (ICMR)** and the **National Institute of Virology (NIV).** ☑

2. **COVISHIELD** – Developed by **Oxford University and AstraZeneca** (manufactured in India by Serum Institute) ✗

3. **SPUTNIK-V** – Developed in **Russia** ✗

4. **MODERNA** – Developed in the **USA** ✗

☑ **Final Answer: COVAXIN**

Correct Option: 1)

Q32.

Ans.

Step 1. Understand what kinematics is

Kinematics is a **branch of physics** that describes the **motion of objects** — how far, how fast, and in which direction they move — **without considering the cause** of the motion (like force or mass).

Step 2. Match with given options

1. **Motion of an object** ☑ (Correct — that's exactly what kinematics studies)

2. Material property ✗

3. Elastic property ✗

4. Optical property ✗

☑ **Final Answer: Motion of an object**

Correct Option: 1)

Q33.

Ans.

Step 1. Understand what chloroform is

- **Chloroform ($CHCl_3$)** is a chemical compound made by **chlorinating methane (CH_4).**

- The process involves **substitution of hydrogen atoms** in methane by chlorine atoms.

Step 2. Identify the gas used

- The base gas for making chloroform is **methane**.

- Reaction (simplified):

$$CH_4 + 3Cl_2 \rightarrow CHCl_3 + 3HCl$$
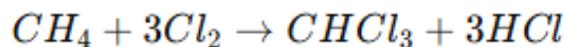
☑ **Final Answer: Methane**

Correct Option: 4)

Q34.

Ans.

Step 1. Understand the concept

In **Jainism**, there are **24 Tirthankaras** (spiritual teachers or prophets) who show the path of salvation.

Step 2. Identify the first Tirthankara

- The **first Tirthankara** is **Rishabhnath (Adinath)**.

- The **24th Tirthankara** is **Mahavira**.

Hence, **Rishabhnath** is believed to be the **first** one.

☑ **Final Answer: Rishabhnath**

Correct Option: 3)

Q36.

Ans.

Step 1. Understand the question

The question asks — *"The Ilbari dynasty is famously known as what?"*

This refers to the **first ruling dynasty** of the **Delhi Sultanate**.

Step 2. Key fact

- The **Ilbari dynasty** was founded by **Qutb-ud-din Aibak** in **1206 CE**.

- He was originally a **slave of Muhammad Ghori,** who later became the ruler of Delhi.

- Because the rulers of this dynasty were **slaves (Mamluks)**, the dynasty is known as the **Slave Dynasty** (or **Mamluk Dynasty**).

Step 3. Eliminate wrong options

- **Khilji Dynasty** → came after the Slave Dynasty ✖
- **Tughlaq Dynasty** → came after Khiljis ✖
- **Lodhi Dynasty** → last dynasty of Delhi Sultanate ✖

☑ **Final Answer: The Slave Dynasty**

Correct Option: 1)

Q36.

Ans.

Step 1. Understand the question

We need to identify **which movement** is associated with the famous slogan -

"Swaraj is my birthright and I shall have it."

Step 2. Recall the historical fact

- This slogan was given by **Bal Gangadhar Tilak,** one of the leaders of the Indian freedom struggle.
- He used it to inspire Indians to fight for **self-rule (Swaraj).**
- This slogan became popular during the **Home Rule Movement (1916–1918).**

Step 3. Match with the correct option

- **Khilafat Movement** → related to Muslim unity after WWI ✖
- **Poona Pact** → agreement between Gandhi & Ambedkar on separate electorates ✖
- **Civil Disobedience Movement** → started by Gandhi in 1930 ✖
- **Home Rule Movement** → led by Bal Gangadhar Tilak and Annie Besant ☑

☑ **Final Answer: Home Rule Movement**

Correct Option: 4)

Q37.

Ans.

Step 1. Understand the question

We need to identify the **incorrect statement** about **Chandrayaan-3**, India's third lunar mission.

Step 2. Recall key facts about Chandrayaan-3

- **Launch date: July 14, 2023** ✅
- **Launched from: Satish Dhawan Space Centre**, Sriharikota — **not** Vikram Sarabhai Space Centre ✖
- **India became the 4th country** to achieve a soft landing on the Moon ✅
- **It consists of:** a **lander (Vikram)** and a **rover (Pragyan)** ✅
- **It was the first mission to land near the Moon's South Pole** ✅

Step 3. Identify the incorrect statement

The **incorrect** statement is:

"Launched from Vikram Sarabhai Space Centre on July 14, 2023."

Because the correct launch site was **Satish Dhawan Space Centre, Sriharikota**.

✅ **Final Answer: Launched from Vikram Sarabhai Space Centre on July 14, 2023**

Correct Option: 1)

Q38.

Ans.

Step 1. Understand the question

The question asks what the **IUCN Red List** is a catalogue of.

Step 2. Recall the key concept

- **IUCN** stands for **International Union for Conservation of Nature**.

- The **IUCN Red List** provides information on the **global conservation status of plant and animal species**.
- It classifies species into categories such as **Endangered, Vulnerable, Critically Endangered, and Extinct** based on their risk of extinction.

Step 3. Match with options

1. **Species threatened with risk of extinction** ☑
2. Red Sea ✘
3. Hot Springs ✘
4. Rivers ✘

☑ **Final Answer: Species threatened with risk of extinction**

Correct Option: 1)

Q39.

Ans.

Step 1. Match each author with their correct work

(A) William Shakespeare → (II) The Tempest

→ A famous play written by Shakespeare.

(B) Lewis Carroll → (III) Through the Looking Glass

→ Sequel to *Alice's Adventures in Wonderland*.

(C) E. M. Forster → (IV) A Passage to India

→ A novel about British rule in India.

(D) Bernard Shaw → (I) Man of Destiny

→ A short play written by George Bernard Shaw.

Step 2. Write the correct matching

(A) – (II)

(B) – (III)

(C) – (IV)

(D) – (I)

☑ Final Answer: (A) – (II), (B) – (III), (C) – (IV), (D) – (I)

Correct Option: 2)

Q40.

Ans.

Step 1. Understand the question

We need to identify which body functions **calcium** helps in.

Step 2. Recall the biological roles of calcium in humans

(A) Bone formation → ☑ Calcium is the main mineral in bones and teeth.

(B) Blood clotting → ☑ Calcium helps in the clotting process by activating clotting factors.

(C) Muscle function → ☑ Calcium ions are essential for muscle contraction.

(D) Blood formation → ✘ Blood formation (hematopoiesis) mainly depends on **iron** and **vitamin B12**, not calcium.

Step 3. Select the correct combination

Correct roles: **(A), (B), and (C)**

☑ Final Answer: (A), (B), and (C) only

Correct Option: 2)

Q41.

Ans.

Step 1. Note the events with their actual years

(D) Economic Liberalization → 1991

(C) Right to Information Act → 2005

(B) Mars Orbiter Mission (Mangalyaan) → 2013

(A) Swachh Bharat Abhiyaan → 2014

Step 2. Arrange them in chronological order (earliest to latest)

(D) – 1991
(C) – 2005

(B) – 2013

(A) – 2014

Order → (D), (C), (B), (A)

☑ Final Answer: (D), (C), (B), (A)

Correct Option: 4)

Q42.

Ans.

Step 1. Note the events with their actual years

(D) Establishment of the United Nations → 1945

(A) Fall of the Berlin Wall → 1989

(B) Apartheid ends in South Africa → 1994

(C) Adoption of Sustainable Development Goals (SDGs) → 2015

Step 2. Arrange them in chronological order (earliest to latest)

(D) – 1945

(A) – 1989

(B) – 1994

(C) – 2015

Order → (D), (A), (B), (C)

☑ Final Answer: (D), (A), (B), (C)

Correct Option: 4)

Q43.

Ans.

Step 1. Understand the question

The question asks which **strait** separates the **North Andaman Islands (India)** from the **islands of Myanmar**.

Step 2. Recall the geographical fact

- The **North Andaman Islands** (India) are located close to the **Coco Islands** (Myanmar).

- The narrow stretch of sea that separates them is known as the **Coco Strait**.

Step 3. Verify other options

- **Andaman Strait** – Incorrect (no such major strait recognized).

- **Preparis Strait** – Lies between **India and Myanmar**, but it separates **Preparis Island** and **North Andaman**, not the Coco group.

- **Cabot Strait** – Located in **Canada**, between Newfoundland and Nova Scotia.

☑ **Final Answer: Coco Strait**

Correct Option: 2)

Q44.

Ans.

Step 1. Identify the part of the Constitution

Article 9 is part of **Part II (Articles 5 to 11)** of the Indian Constitution, which deals with **Citizenship.**

Step 2. Recall what Article 9 states

Article 9 says:

"No person shall be a citizen of India by virtue of Article 5, 6, or 8 if he has voluntarily acquired the citizenship of any foreign State."

This means that if any Indian **voluntarily becomes a citizen of another country,** he/she **automatically loses Indian citizenship.**

Step 3. Understand the concept

- India does **not allow dual citizenship.**

- So, acquiring foreign citizenship voluntarily leads to the **loss of Indian citizenship.**

☑ **Final Answer: Persons who voluntarily acquire foreign citizenship**

Correct Option: 3)

Q45.

Ans.

Step 1. Understand the question

The question asks about the **main purpose** of the **Goods and Services Tax (GST) compensation fund** in India.

Step 2. Recall the concept

- When **GST** was introduced in **2017**, many states were concerned that they might **lose revenue** because earlier taxes like VAT, excise, and service tax were replaced by GST.

- To address this, the **GST (Compensation to States) Act, 2017** was introduced.

- Under this Act, the **GST Compensation Fund** was created to **compensate states** for any **loss of revenue** arising due to the implementation of GST for a period of **five years** (initially).

☑ Final Answer: To compensate states for the loss of revenue due to the implementation of GST.

Correct Option: 4)

Q46.

Ans.

Step 1. Analyze each statement carefully

(A) Clouds are classified according to their **appearance and height**.

☑ **Correct** — clouds are grouped based on how they look (shape) and the altitude at which they form.

(B) Cirrus clouds are **high-altitude, feathery-shaped**, and composed entirely of **ice crystals**.

☑ **Correct** — cirrus clouds are thin, wispy, and form very high in the sky (above 6,000 m).

(C) Nimbostratus clouds are **mid-level** clouds producing **sporadic rain**.

✗ **Incorrect** — nimbostratus clouds are **low to mid-level** clouds that bring **continuous rainfall**, not sporadic.

(D) Altocumulus are **heap-like clouds** with **flat bases** and **rounded tops**.

☑ **Correct** — altocumulus clouds are white or gray layers of rounded masses at mid-altitudes.

Step 2. Select the correct combination

Only **(A), (B), and (D)** are correct.

☑ **Final Answer: (A), (B), and (D) only**

Correct Option: 1)

Q47.

Ans.

Step 1. Understand the question

The question asks: *Aizawl is the capital of which Indian state?*

Step 2. Recall the fact

- **Aizawl** is the **capital city of Mizoram**, a northeastern state of India.
- It is located in the **northern part of Mizoram** and serves as the political and cultural center of the state.

☑ **Final Answer: Mizoram**

Correct Option: 3)

Q48.

Ans.

Step 1. Match each country with its currency

(A) **Japan** → Yen (II)

(B) **Russia** → Ruble (III)

(C) **China** → Yuan (IV)

(D) **Norway** → Krone (I)

Step 2. Write the correct matching

(A) – (II)

(B) – (III)

(C) – (IV)

(D) – (I)

☑ Final Answer: (A) – (II), (B) – (III), (C) – (IV), (D) – (I)

Correct Option: 3)

Q49.

Ans.

Step 1. Understand the question

The question asks which river flows through the **Grand Canyon of India**, also called the **Gandikota Gorge**.

Step 2. Recall the geographical fact

- The **Gandikota Gorge** is located in **Andhra Pradesh**.
- It is often called the **Grand Canyon of India** because of its deep valleys and steep rocky walls.
- The river that carved this gorge is the **Penna (Pennar) River**.

☑ Final Answer: Penna River

Correct Option: 3)

Q50.

Ans.

Step 1. Understand the question

The question asks — *The National Emblem of India has been adopted from the capital of which king and where it was situated.*

Step 2. Recall the historical fact

- The **National Emblem of India** is adopted from the **Lion Capital of Ashoka**.
- This **Lion Capital** was built by **Emperor Ashoka** during the **Mauryan Empire**.
- It is located at **Sarnath**, near **Varanasi (Uttar Pradesh)**, where Lord Buddha gave his first sermon.

☑ Final Answer: Ashoka, Sarnath

Correct Option: 2)