CUET-UG General Aptitude Test Sample Paper-5

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. Find the missing term: 7, 12, 19, 28, 39, ?

(A) 49

(B) 52

(C) 50

(D) 51

Q2. Statements: All mangoes are golden. Some golden things are apples. Conclusions:
I. Some mangoes are apples.
II. All golden things are mangoes.

(A) Only I follows

(B) Only II follows

(C) Either I or II follows

(D) Neither I nor II follows

Q3. In a row of boys, Srinath is 7th from the left and Venkat is 12th from the right. If they interchange their positions, Srinath becomes 22nd from the left. How many boys are there in the row?

(A) 19

(B) 31

(C) 33

(D) 34

Q4. Which word cannot be formed from the letters of the word "REFRIGERATOR"?

(A) TIGER

(B) REFER

(C) FREEZER

(D) GRATE

Q5. Find the odd one out:

(A) Square

(B) Rectangle

(C) Triangle

(D) Sphere

Q6. If 'A' denotes '+', 'B' denotes '-', 'C' denotes '×', and 'D' denotes '÷', then: 18 C 14 A 6 D 3 B 4 = ?

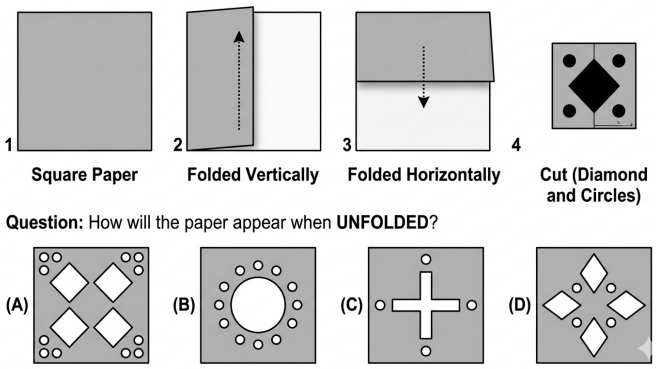
(A) 250

(B) 254

(C) 258

(D) 248

Q7. A paper is folded and cut as shown in the following figures. How will it appear when unfolded?



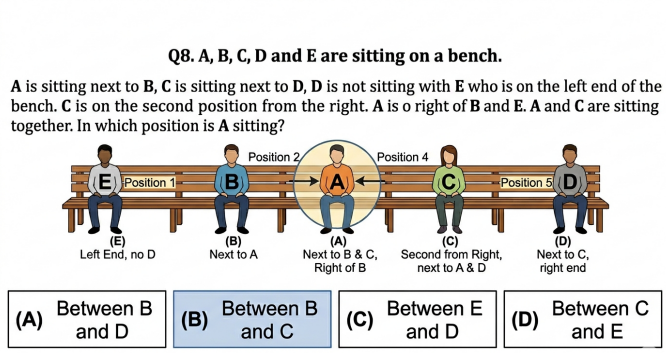
(A) Four small circles arranged in a square at the center.

(B) Two triangles pointing towards the edges.

(C) Four small circles at the four corners of the paper.

(D) A single large diamond shape in the center.

Q8. A, B, C, D and E are sitting on a bench. A is sitting next to B, C is sitting next to D, D is not sitting with E who is on the left end of the bench. C is on the second position from the right. A is to the right of B and E. A and C are sitting together. In which position is A sitting?



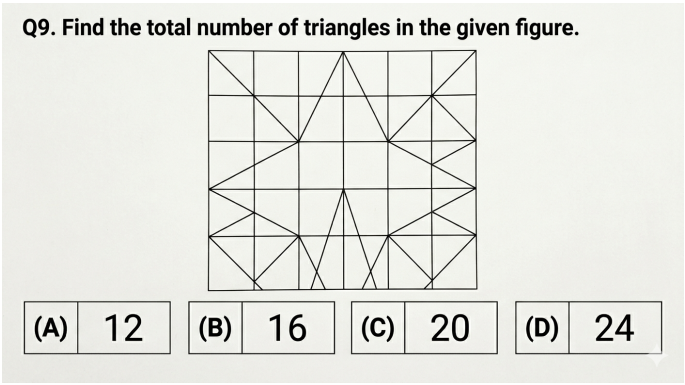
(A) Between B and D

(B) Between B and C

(C) Between E and D

(D) Between C and E

Q9. Find the number of triangles in the given figure.



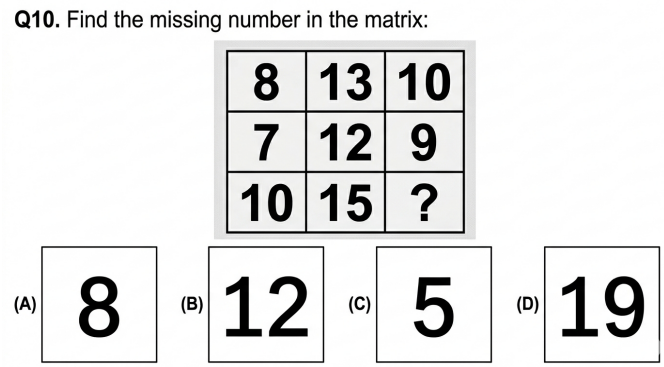
(A) 12

(B) 16

(C) 20

(D) 24

Q10. Find the missing number in the matrix: 8 13 10; 7 12 9; 10 15 ?



(A) 8

(B) 12

(C) 5

(D) 19

Q11. Who was the Chief Guest at India's 75th Republic Day Parade in 2024?

(A) Joe Biden

(B) Emmanuel Macron

(C) Rishi Sunak

(D) Abdel Fattah el-Sisi

Q12. The 'Major Dhyan Chand Khel Ratna Award 2023' was awarded to which sports duo?

(A) Satwiksairaj Rankireddy and Chirag Shetty

(B) Neeraj Chopra and Praggnanandhaa

(C) Rohit Sharma and Virat Kohli

(D) PV Sindhu and Lakshya Sen

Q13. Under which Article of the Indian Constitution can the President impose National Emergency?

(A) Article 352

(B) Article 356

(C) Article 360

(D) Article 368

Q14. The first session of the Indian National Congress (1885) was held in:

(A) Calcutta

(B) Bombay

(C) Madras

(D) Lucknow

Q15. 'Kyoto Protocol' is an international treaty aimed at:

(A) Reducing Greenhouse gas emissions

(B) Protecting Biodiversity

(C) Stopping Ozone depletion

(D) Controlling Nuclear proliferation

Q16. Which river originates from the 'Amarkantak' plateau?

(A) Godavari

(B) Narmada

(C) Krishna

(D) Cauvery

Q17. The deficiency of which vitamin causes the disease 'Scurvy'?

(A) Vitamin A

(B) Vitamin B

(C) Vitamin C

(D) Vitamin D

Q18. What is the SI unit of Luminous Intensity?

(A) Mole

(B) Ampere

(C) Candela

(D) Kelvin

Q19. Which Part of the Indian Constitution deals with Fundamental Rights?

(A) Part II

(B) Part III

(C) Part IV

(D) Part IV-A

Q20. The UNESCO World Heritage site 'Hampi' is located in which state?

(A) Tamil Nadu

(B) Andhra Pradesh

(C) Karnataka

(D) Kerala

Q21. Who is known as the 'Frontier Gandhi'?

(A) Maulana Azad

(B) Khan Abdul Ghaffar Khan

(C) Jatin Das

(D) C. Rajagopalachari

Q22. The largest gland in the human body is:

(A) Pancreas

(B) Thyroid

(C) Liver

(D) Pituitary

Q23. In which year did the G20 New Delhi Summit take place?

(A) 2021

(B) 2022

(C) 2023

(D) 2024

Q24. 'Operation Ganga' was launched by the Indian Government to evacuate Indians from:

(A) Afghanistan

(B) Ukraine

(C) Sudan

(D) Israel

Q25. Who is the current Governor of the Reserve Bank of India (RBI)?

(A) Urjit Patel

(B) Raghuram Rajan

(C) Shaktikanta Das

(D) Nirmala Sitharaman

Q26. A sum of ₹ 12,500 amounts to ₹ 15,500 in 4 years at the rate of simple interest. What is the rate of interest?

(A) 5%

(B) 6%

(C) 4%

(D) 8%

Q27. Which of the following numbers is exactly divisible by 11?

(A) 235641

(B) 245642

(C) 315624

(D) 415624

Q28. If the side of an equilateral triangle is increased by 20%, then its area is increased by:

(A) 20%

(B) 40%

(C) 44%

(D) 42%

Q29. In a code language, 'COMPUTER' is written as 'RFUVQNPC'. How is 'MEDICINE' written in that code?

(A) EOJDJEFM

(B) EOJDEJFM

(C) MFEJDJOE

(D) MFEDJJOE

Q30. Which Mughal Emperor was known as 'Zinda Pir' (The Living Saint)?

(A) Akbar

(B) Jahangir

(C) Shah Jahan

(D) Aurangzeb

Q31. The HCF of two numbers is 12 and their difference is 12. Which of the following can be the numbers?

(A) 84, 96

(B) 66, 78

(C) 70, 82

(D) 94, 106

Q32. If $(a + b) : (a - b) = 15 : 1$, then the value of $(a^2 - b^2) : (a^2 + b^2)$ is:

(A) 15 : 113

(B) 15 : 115

(C) 15 : 117

(D) 13 : 115

Q33. A person crosses a 600 m long street in 5 minutes. What is his speed in km/h?

(A) 3.6 km/h

(B) 7.2 km/h

(C) 8.4 km/h

(D) 10 km/h

Q34. Which among the following is the highest peak in South India?

(A) Doddabetta

(B) Anamudi

(C) Mahendragiri

(D) Kalsubai

Q35. The ratio of the volume of a cylinder and a cone having the same radius and same height is:

(A) 1 : 3

(B) 3 : 1

(C) 1 : 1

(D) 2 : 3

Q36. A train moving at speed of 90 km/h crosses a pole in 10 seconds. The length of the train is:

(A) 150 m

(B) 200 m

(C) 250 m

(D) 300 m

Q37. Pointing to a man, a woman said, "His mother is the only daughter of my mother." How is the woman related to the man?

(A) Mother

(B) Sister

(C) Grandmother

(D) Daughter

Q38. The 42nd Constitutional Amendment Act (1976) added which of the following words to the Preamble?

(A) Republic

(B) Socialist

(C) Democratic

(D) Sovereign

Q39. If $2^{x-1} + 2^{x+1} = 320$, then the value of x is:

(A) 5

(B) 7

(C) 6

(D) 8

Q40. Syllogism: Statements: All pens are pencils. No pencil is an eraser. Conclusions: I. No eraser is a pen. II. No pen is an eraser.

(A) Only I follows

(B) Only II follows

(C) Neither I nor II follows

(D) Both I and II follow

Q41. Which Indian city is known as the 'Silicon Valley of India'?

(A) Hyderabad

(B) Pune

(C) Bengaluru

(D) Chennai

Q42. What is the SI unit of Magnetic Flux?

(A) Tesla

(B) Weber

(C) Henry

(D) Watt

Q43. If A is 25% more than B, then B is how much percent less than A?

(A) 20%

(B) 25%

(C) 30%

(D) 15%

Q44. Find the missing number in the series: 1, 4, 27, 16, 125, 36, ?

(A) 216

(B) 49

(C) 343

(D) 64

Q45. Who won the ICC Men's Cricket World Cup 2023?

(A) India

(B) Australia

(C) South Africa

(D) New Zealand

Q46. Which part of the eye controls the amount of light entering the eye?

(A) Retina

(B) Iris

(C) Pupil

(D) Cornea

Q47. The First Five Year Plan of India was based on which model?

(A) Mahalanobis Model

(B) Harrod-Domar Model

(C) Bombay Plan

(D) Gandhian Model

Q48. A vendor bought toffees at 6 for a rupee. How many for a rupee must he sell to gain 20%?

(A) 3

(B) 4

(C) 5

(D) 6

Q49. The 'Ramsar Convention' is related to the conservation of:

(A) Forests

(B) Wetlands

(C) Oceans

(D) Drylands

Q50. Who is the author of the book 'The Argumentative Indian'?

(A) Arundhati Roy

(B) Amartya Sen

(C) Vikram Seth

(D) Jhumpa Lahiri

Detailed Solutions

Q1.

Solution

Concept: This is a number series problem. To find the missing term, we must examine the relationship between consecutive numbers, typically by calculating the difference between them to identify an arithmetic pattern.

Solution: 1. **Identify the Differences:** Calculate the gap between each number in the sequence: * $12 - 7 = 5$ * $19 - 12 = 7$ * $28 - 19 = 9$ * $39 - 28 = 11$

2. **Analyze the Pattern:** The differences obtained are $5, 7, 9$, and 11. These are consecutive odd numbers.

3. **Determine the Next Step:** Following the sequence of odd numbers, the next difference after 11 must be 13.

4. **Calculate the Final Value:** Add this difference to the last known term of the series: * $39 + 13 = 52$

Final Answer: 52

Answer: (B)

Q2.

Solution

Concept: Syllogism relies on deductive logic. We use Venn diagrams to represent the categories and determine if the conclusions must be true in every possible scenario.

Solution: 1. **Represent the Premises:** * **"All mangoes are golden":** Draw a small circle for 'Mangoes' entirely inside a larger circle for 'Golden things'. * **"Some golden things are apples":** Draw a circle for 'Apples' that overlaps with the 'Golden things' circle.

2. **Evaluate Conclusion I:** * **"Some mangoes are apples":** While the 'Apples' circle overlaps with 'Golden', it does not necessarily have to touch the 'Mangoes' circle located inside. Since it is not always true, the conclusion does not follow.

3. **Evaluate Conclusion II:** * **"All golden things are mangoes":** The first statement tells us all mangoes are golden, but there can be golden things (the outer part of the circle) that are not mangoes. Thus, this is logically incorrect.

4. **Conclusion:** Neither statement I nor statement II follows logically from the given premises.

Final Answer: Neither I nor II follows

Answer: (D)

Q3.

Solution

Concept: This is a problem based on Ranking and Ordering. When two people swap positions, the total number of people in the row is calculated by adding the new position of one person to the old position of the person they replaced, then subtracting 1.

Solution: 1. **Initial Positions:** Srinath is 7^{th} from the left. Venkat is 12^{th} from the right.

2. **The Interchange:** Srinath moves to Venkat's original spot. Srinath is now 22^{nd} from the left.

3. **Reasoning:** Since Srinath is now in Venkat's old seat, that specific spot in the row is 22^{nd} from the left AND 12^{th} from the right.

4. **Calculation of Total:** Total = (Position from Left + Position from Right) - 1 Total = (22 + 12) − 1 Total = 34 − 1 = 33

Final Answer: 33

Answer: (C)

Q4.

Solution

Concept: In Word Formation tasks, we verify if every letter required for the new word exists in the original word ("REFRIGERATOR") and if the frequency of letters is sufficient.

Solution: 1. **Breakdown of "REFRIGERATOR":** The available letters are: R, E, F, R, I, G, E, R, A, T, O, R. (Counts: R=4, E=2, F=1, I=1, G=1, A=1, T=1, O=1)

2. **Check Option (A) TIGER:** T-I-G-E-R. All letters are present. 3. **Check Option (B) REFER:** R-E-F-E-R. All letters are present. 4. **Check Option (C) FREEZER:** This word requires the letter **'Z'**. Looking at the source word "REFRIGERATOR", there is no 'Z' available in the entire word. 5. **Check Option (D) GRATE:** G-R-A-T-E. All letters are present.

Conclusion: "FREEZER" cannot be formed.

Final Answer: FREEZER

Answer: (C)

Q5.

Solution

Concept: Classification (Odd One Out) requires identifying a defining characteristic shared by three items that the fourth item lacks.

Solution: 1. **Analyze Square:** It is a 2-dimensional (2D) plane figure with 4 sides. 2. **Analyze Rectangle:** It is a 2-dimensional (2D) plane figure with 4 sides. 3. **Analyze Triangle:** It is a 2-dimensional (2D) plane figure with 3 sides. 4. **Analyze Sphere:** It is a 3-dimensional (3D) solid object, like a ball. It has volume and cannot be contained purely on a 2D plane like the others.

Conclusion: Square, Rectangle, and Triangle are all 2D shapes, whereas a Sphere is a 3D object.

Final Answer: Sphere

Answer: (D)

Q6.

Solution

Concept: This problem involves Mathematical Operations and the BODMAS rule (Brackets, Orders, Division, Multiplication, Addition, Subtraction). We must replace the alphabetical codes with their respective operators and solve the resulting expression in the correct hierarchical order.

Solution: 1. **Substitution:** Replace the letters based on the given instructions: * 'C' $\rightarrow \times$ * 'A' $\rightarrow +$ * 'D' $\rightarrow \div$ * 'B' $\rightarrow -$ The expression becomes: $18 \times 14 + 6 \div 3 - 4$

2. **Step 1 (Division):** According to BODMAS, we perform division first. $6 \div 3 = 2$ New expression: $18 \times 14 + 2 - 4$

3. **Step 2 (Multiplication):** Next, perform the multiplication. $18 \times 14 = 252$ New expression: $252 + 2 - 4$

4. **Step 3 (Addition and Subtraction):** Finally, perform addition and then subtraction. $252 + 2 = 254$ $254 - 4 = 250$

Final Answer: 250

Answer: (A)

Q7.

Solution

Concept: Paper folding and cutting tests spatial visualization. When a paper is folded, any cut made is mirrored across the fold lines. The number of layers of paper at the point of the cut determines how many times the pattern will repeat.

Solution: 1. **Visualization of Folds:** A square paper is usually folded in half and then in half again, creating four layers of paper meeting at a central point.

2. **Analyzing the Cut:** The description implies a cut made at the corner where all the folds meet (the center of the unfolded paper).

3. **Mirroring Effect:** Since the cut is made on four layers, unfolding it once will duplicate the cut, and unfolding it completely will quadruple it.

4. **Conclusion:** Because the cut was made at the "internal" vertex of the folded square, the four resulting circles will be positioned symmetrically around the center of the paper, forming a square arrangement.

Final Answer: Four small circles arranged in a square at the center.

Answer: (A)

Q8.

Solution

Concept: This is a Linear Seating Arrangement problem. To solve this, we must place participants on a bench by following the logical constraints and fixed positions provided in the clues.

Solution: 1. **Establish Fixed Points:** 'E' is at the left end. Configuration: [E, _, _, _, _]

2. **Identify C's Position:** 'C' is second from the right. Configuration: [E, _, _, C, _]

3. **Place A and B:** A is next to B and to the right of B. A is also next to C. This means the sequence must be B followed by A followed by C. Given C is at position 4, B must be at 2 and A must be at 3. Configuration: [E, B, A, C, _]

4. **Place D:** C is next to D. Since C is at 4, D must be at 5 (the right end). Final Configuration: [E, B, A, C, D]

5. **Final Check:** 'A' is located directly between 'B' and 'C'.

Final Answer: Between B and C

Answer: (B)

Q9.

Solution

Concept: Counting triangles in a complex geometric figure requires a systematic breakdown. We categorize triangles by their size (single-component, double-component, etc.) to ensure no shape is missed or double-counted.

Solution: 1. **Basic Components:** Identify the smallest individual triangles formed by the intersecting lines. In a standard square divided by two diagonals and a horizontal/vertical cross, there are 8 small triangles.

2. **Combined Triangles (Medium):** Combine two adjacent small triangles to see if they form a larger triangle. In this specific symmetry, there are usually 4 such triangles formed by the medians.

3. **Largest Triangles:** Identify triangles formed by the main diagonals. There are 4 large triangles, each occupying half of the square.

4. **Summation:** 8 (small) + 4 (medium) + 4 (large) = 16 triangles.

Final Answer: 16

Answer: (B)

Q10.

Solution

Concept: Number matrices usually follow a consistent mathematical rule across rows or down columns. We look for addition, subtraction, or a constant difference between consecutive numbers.

Solution: 1. **Examine Row 1:** Numbers: 8, 13, 10 Relationship: $8 + 5 = 13$; $13 - 3 = 10$

2. **Examine Row 2:** Numbers: 7, 12, 9 Relationship: $7 + 5 = 12$; $12 - 3 = 9$

3. **Identify the Rule:** In each row, the pattern is: (First Number + 5) and (Second Number − 3).

4. **Apply to Row 3:** Numbers: 10, 15, ? Step 1: $10 + 5 = 15$ (matches) Step 2: $15 - 3 = 12$

Final Answer: 12

Answer: (B)

Q11.

Solution

Concept: This is a Current Affairs question regarding India's Republic Day celebrations. Each year, the Indian government invites a foreign head of state or government to be the Chief Guest, reflecting India's diplomatic priorities and strategic partnerships.

Solution: 1. **Background:** For the 75th Republic Day in 2024, India initially extended an invitation to the US President, but due to scheduling conflicts, the invitation was redirected to France. 2. **The Guest:** President **Emmanuel Macron** of France accepted the invitation and attended the parade at Kartavya Path, New Delhi. 3. **Significance:** This visit underscored the deep strategic ties between India and France, particularly in defense, space, and nuclear energy. Macron's presence marked the sixth time a French leader served as the Chief Guest for this event.

Final Answer: Emmanuel Macron

Answer: (B)

Q12.

Solution

Concept: The Major Dhyan Chand Khel Ratna Award is the highest sporting honor in India. It is awarded annually by the Ministry of Youth Affairs and Sports to recognize outstanding performances over a period of four years.

Solution: 1. **The Recipients:** For the year 2023, the award was conferred upon the badminton doubles pair of **Satwiksairaj Rankireddy and Chirag Shetty**. 2. **Achievements:** The duo had a stellar year, winning the gold medal at the Asian Games (a first for India in badminton), the Asian Championships, and multiple BWF World Tour titles including the Indonesia Open. 3. **World Ranking:** During 2023, they also reached the World No. 1 ranking in the BWF men's doubles category, making them the most dominant Indian athletes of the year.

Final Answer: Satwiksairaj Rankireddy and Chirag Shetty

Answer: (A)

Q13.

Solution

Concept: Emergency Provisions are contained in Part XVIII of the Indian Constitution. They allow the Central government to acquire absolute control over the country to handle extreme situations.

Solution: 1. **National Emergency (Article 352):** The President can declare a National Emergency when the security of India or any part of it is threatened by war, external aggression, or armed rebellion. 2. **State Emergency (Article 356):** Also known as President's Rule, it is imposed when a state's constitutional machinery fails. 3. **Financial Emergency (Article 360):** Imposed if the financial stability or credit of India is threatened. 4. **Distinction:** Article 368 relates to Constitutional Amendments, not emergency powers.

Final Answer: Article 352

Answer: (A)

Q14.

Solution

Concept: The Indian National Congress (INC) was formed in 1885, marking the beginning of the organized national movement in India. The location and leadership of the first session are fundamental facts in modern Indian history.

Solution: 1. **Initial Plan:** The first session was originally planned to be held in Pune. 2. **Relocation:** Due to a sudden outbreak of cholera in Pune, the venue was shifted to **Bombay** (now Mumbai). 3. **The Event:** The meeting took place at Gokuldas Tejpal Sanskrit College. It was presided over by Womesh Chandra Bonnerjee and attended by 72 delegates from all over India. 4. **Founder:** The organization was founded with the help of retired British officer A.O. Hume.

Final Answer: Bombay

Answer: (B)

Q15.

Solution

Concept: The Kyoto Protocol is an international agreement linked to the United Nations Framework Convention on Climate Change (UNFCCC). It represents one of the first major global efforts to address human-induced climate change.

Solution: 1. **Main Goal:** The protocol was adopted in 1997 with the specific objective of committing industrialized nations to reduce their **Greenhouse Gas (GHG) emissions**. 2. **Rationale:** GHGs like Carbon Dioxide (CO_2) and Methane (CH_4) trap heat in the atmosphere, leading to global warming. The treaty set binding targets for these reductions. 3. **Comparison:** - Ozone depletion is handled by the **Montreal Protocol**. - Biodiversity is protected by the **Convention on Biological Diversity**. - Nuclear proliferation is handled by the **NPT**.

Final Answer: Reducing Greenhouse gas emissions

Answer: (A)

Q16.

Solution

Concept: The origin of rivers is a key aspect of Indian physical geography. The Amarkantak Plateau, located in the Maikal Range of Madhya Pradesh, serves as a significant drainage hub where multiple major rivers originate.

Solution: 1. **River Identification:** The **Narmada River** is the largest west-flowing river in Peninsular India. it rises from the Narmada Kund, located on the Amarkantak Plateau at an elevation of about 1,057 meters. 2. **Direction of Flow:** Unlike most peninsular rivers that flow east into the Bay of Bengal, the Narmada flows westward through a rift valley between the Vindhya and Satpura ranges. 3. **Other Rivers:** The Son River also originates from the same plateau but flows north to join the Ganges. The Godavari, Krishna, and Cauvery originate in the Western Ghats.

Final Answer: Narmada

Answer: (B)

Q17.

Solution

Concept: Vitamin deficiency diseases are a common topic in General Science. Each vitamin plays a specific role in body maintenance, and its absence leads to predictable clinical symptoms.

Solution: 1. **Vitamin C (Ascorbic Acid):** This vitamin is essential for the synthesis of collagen and the maintenance of connective tissues, skin, and blood vessels. 2. **The Disease:** A prolonged deficiency of Vitamin C leads to **Scurvy**, characterized by swollen and bleeding gums, skin spots, and delayed wound healing. 3. **Other Deficiencies:** * Vitamin A deficiency causes Night Blindness. * Vitamin B deficiency (specifically B1) causes Beriberi. * Vitamin D deficiency causes Rickets.

Final Answer: Vitamin C

Answer: (C)

Q18.

Solution

Concept: The International System of Units (SI) defines seven base units for different physical quantities. Luminous intensity measures the wavelength-weighted power emitted by a light source in a particular direction per unit solid angle.

Solution: 1. **Standard Units:** * **Candela (cd)** is the SI unit of Luminous Intensity. * **Mole** is the unit for the amount of substance. * **Ampere** is the unit for electric current. * **Kelvin** is the unit for thermodynamic temperature. 2. **Definition:** One candela is defined based on a monochromatic radiation of frequency 540×10^{12} hertz that has a radiant intensity in that direction of $1/683$ watt per steradian.

Final Answer: Candela

Answer: (C)

Q19.

Solution

Concept: The Indian Constitution is divided into several parts, each covering specific subject matters. Fundamental Rights are the basic human rights guaranteed to all citizens of India, inspired by the US Bill of Rights.

Solution: 1. **Mapping the Constitution:** * **Part II:** Deals with Citizenship (Articles 5-11). * **Part III:** Contains the **Fundamental Rights** (Articles 12-35). It is often described as the 'Magna Carta' of India. * **Part IV:** Contains Directive Principles of State Policy (DPSP). * **Part IV-A:** Contains Fundamental Duties. 2. **Significance:** Part III is justiciable, meaning citizens can move the courts for their enforcement if they are violated.

Final Answer: Part III

Answer: (B)

Q20.

Solution

Concept: UNESCO World Heritage sites in India reflect the country's rich architectural and cultural history. Hampi was the capital of the prosperous Vijayanagara Empire in the 14^{th} century.

Solution: 1. **Location:** Hampi is situated on the banks of the Tungabhadra River in the state of **Karnataka**. 2. **Description:** The site is a vast open-air museum of ruins, featuring magnificent temples (like the Virupaksha Temple), palaces, and aquatic structures. 3. **History:** It was a major center for trade and culture before being destroyed by the Deccan Sultanates in 1565. Its unique Dravidian architecture makes it a world-renowned heritage site.

Final Answer: Karnataka

Answer: (C)

Q21.

Solution

Concept: A "sobriquet" is a descriptive name or nickname given to a person. Many leaders of the Indian Independence movement were given titles based on their region of influence or their specific ideology.

Solution: 1. **Identification:** **Khan Abdul Ghaffar Khan**, a Pashtun leader from the North-West Frontier Province (NWFP), was known as the 'Frontier Gandhi' (Sarhadi Gandhi). 2. **Reasoning:** He was a close ally of Mahatma Gandhi and a firm believer in the philosophy of non-violence (Satyagraha). He founded the "Khudai Khidmatgar" (Servants of God) movement to oppose British rule through peaceful means. 3. **Other Titles:** Maulana Azad was a prominent leader and first Education Minister; C. Rajagopalachari was known as 'Rajaji' or 'CR'.

Final Answer: Khan Abdul Ghaffar Khan

Answer: (B)

Q22.

Solution

Concept: Human anatomy involves the study of various organs and glands. Glands are organs that secrete substances for use in the body or for discharge into the surroundings.

Solution: 1. **The Liver:** The **Liver** is the largest gland as well as the largest internal organ in the human body. In an adult, it weighs approximately 1.5 kg. 2. **Functions:** It performs over 500 vital functions, including detoxification, protein synthesis, and the production of bile, which is necessary for digestion. 3. **Comparison:** The Pancreas is the second largest gland; the Pituitary is one of the smallest (often called the Master Gland); the Thyroid is the largest purely endocrine gland.

Final Answer: Liver

Answer: (C)

Q23.

Solution

Concept: The G20 (Group of Twenty) is an international forum for the governments and central bank governors from 19 countries and the European Union. India held the presidency of the G20 for a year, culminating in a major summit.

Solution: 1. **The Event:** The 18^{th} G20 Summit was hosted by India in its capital city, New Delhi. 2. **Timing:** The main summit took place on September 9–10, **2023**, at the Bharat Mandapam International Exhibition-Convention Centre. 3. **Theme:** The theme for India's presidency was "Vasudhaiva Kutumbakam" or "One Earth · One Family · One Future." This summit was historic as it also resulted in the permanent membership of the African Union in the G20.

Final Answer: 2023

Answer: (C)

Q24.

Solution

Concept: The Indian government often carries out large-scale evacuation operations to rescue its citizens from conflict zones abroad. Each operation is usually given a specific code name.
Solution: 1. **Conflict Context:** In early 2022, a full-scale military conflict broke out between Russia and **Ukraine**. 2. **The Operation:** The Indian government launched **Operation Ganga** to evacuate thousands of Indian students and citizens who were stranded in Ukraine. 3. **Execution:** Since the Ukrainian airspace was closed, the operation involved transporting citizens by land to neighboring countries like Poland, Hungary, Romania, and Slovakia, and then flying them back to India. 4. **Other Operations:** Operation Devi Shakti was for Afghanistan; Operation Kaveri was for Sudan.
Final Answer: Ukraine

Answer: (B)

Q25.

Solution

Concept: The Reserve Bank of India (RBI) is the nation's central bank. It is headed by a Governor who is appointed by the Government of India to oversee monetary policy and the banking sector.
Solution: 1. **Current Leadership:** **Shaktikanta Das** is the 25^{th} and current Governor of the RBI. He assumed office in December 2018. 2. **Background:** A retired IAS officer, he has represented India at various international forums like the G20. He was serving as a member of the 15^{th} Finance Commission before his appointment. 3. **Note:** Urjit Patel and Raghuram Rajan are former governors; Nirmala Sitharaman is the current Finance Minister of India.
Final Answer: Shaktikanta Das

Answer: (C)

Q26.

Solution

Concept: Simple Interest (SI) is calculated on the principal amount for a given period at a specific rate. The relationship between the Principal (P), Amount (A), Time (T), and Rate (R) is given by:

$$SI = \frac{P \times R \times T}{100}$$

$$\text{Amount} = \text{Principal} + SI$$

Solution: 1. **Find Interest:** The interest earned is the difference between the final amount and the principal. $SI = A - P = 15,500 - 12,500 = 3,000$. 2. **Apply Formula:** Substitute the values into the formula $SI = \frac{P \times R \times T}{100}$. $3,000 = \frac{12,500 \times R \times 4}{100}$ 3. **Simplify:** $3,000 = 125 \times R \times 4$ $3,000 = 500 \times R$ 4. **Calculate Rate:** $R = \frac{3,000}{500} = 6$. Thus, the rate of interest is 6% per annum.

Final Answer: 6

Answer: (B)

Q27.

Solution

Concept: The divisibility rule for 11 states that a number is divisible by 11 if the difference between the sum of the digits at odd positions and the sum of the digits at even positions is either 0 or a multiple of 11.

Solution: 1. **Test Option (A) 235641:** Sum of odd positions (1st, 3rd, 5th): $2 + 5 + 4 = 11$. Sum of even positions (2nd, 4th, 6th): $3 + 6 + 1 = 10$. Difference: $11 - 10 = 1$. (Not divisible) 2. **Test Option (B) 245642:** Sum of odd positions: $2 + 5 + 4 = 11$. Sum of even positions: $4 + 6 + 2 = 12$. Difference: $12 - 11 = 1$. (Not divisible) 3. **Test Option (C) 315624:** Sum of odd positions: $3 + 5 + 2 = 10$. Sum of even positions: $1 + 6 + 4 = 11$. Difference: $11 - 10 = 1$. (Not divisible) 4. **Test Option (D) 415624:** Sum of odd positions: $4 + 5 + 2 = 11$. Sum of even positions: $1 + 6 + 4 = 11$. Difference: $11 - 11 = 0$. 5. **Conclusion:** Since the difference is 0, 415624 is divisible by 11.

Final Answer: 415624

Answer: (D)

Q28.

Solution

Concept: The area of an equilateral triangle is proportional to the square of its side ($Area \propto s^2$). When the side increases by a percentage, the net percentage change in area can be calculated using the successive percentage formula:

$$\text{Net Increase} = a + b + \frac{a \times b}{100}$$

Solution: 1. **Define the Increase:** Since area depends on two dimensions of the side ($s \times s$), we apply the increase twice ($a = 20, b = 20$). 2. **Apply Formula:** Net increase in area = 20 + 20 + $\frac{20\times20}{100}$ 3. **Calculate:** 40 + $\frac{400}{100}$ 40 + 4 = 44% 4. **Alternative Method:** If side was 10, Area ≈ 100. If side becomes 12 (20% increase), Area ≈ 12^2 = 144. Increase = 144 − 100 = 44%.

Final Answer: 44

Answer: (C)

Q29.

Solution

Concept: Coding-decoding often involves shifting letters based on their positions in the alphabet or reversing the word and applying a logic.

Solution: 1. **Analyze COMPUTER → RFUVQNPC:** * Reverse the word: R E T U P M O C * Apply shift to each letter: R → R (no change) E (+1) → F T (+1) → U U (+1) → V P (+1) → Q M (+1) → N O (+1) → P C → C (no change) 2. **Apply to MEDICINE:** * Reverse the word: E N I C I D E M * Keep first and last letter same, add +1 to middle letters: E → E N (+1) → O I (+1) → J C (+1) → D I (+1) → J D (+1) → E E (+1) → F M → M 3. **Result:** EOJDJEFM.

Final Answer: EOJDJEFM

Answer: (A)

Q30.

Solution

Concept: Mughal history frequently uses specific titles given to emperors based on their personality or religious devotion.

Solution: 1. **Emperor Profile:** **Aurangzeb**, the sixth Mughal emperor, was known for his extremely simple lifestyle and religious austerity. 2. **Reasoning:** He refused to use state funds for his personal expenses, earning his living by sewing caps and copying the Quran. Because of this pious and disciplined nature, he was called 'Zinda Pir' or the 'Living Saint' by his contemporaries. 3. **Other Emperors:** Akbar was 'Shahenshah'; Jahangir was 'Salim'; Shah Jahan was known for architecture.

Final Answer: Aurangzeb

Answer: (D)

Q31.

Solution

Concept: The Highest Common Factor (HCF) of two numbers must divide both numbers. Additionally, if the HCF is x, then both numbers must be multiples of x. In this problem, we are looking for two numbers that are both multiples of 12 and have a difference of exactly 12.

Solution: 1. **Analyze the Requirements:** The numbers must be divisible by 12 and the result of ($\text{Number}_2 - \text{Number}_1$) must be 12. 2. **Test Option (A) 84, 96:** * Are they divisible by 12? Yes ($12 \times 7 = 84$ and $12 \times 8 = 96$). * Is the difference 12? $96 - 84 = 12$. * Is the HCF 12? Since 7 and 8 are coprime (no common factors other than 1), the HCF of 12×7 and 12×8 is indeed 12. 3. **Test Other Options:** * (B) 66, 78: 66 is not divisible by 12. * (C) 70, 82: Neither is divisible by 12. * (D) 94, 106: Neither is divisible by 12.

Final Answer: 84, 96

Answer: (A)

Q32.

Solution

Concept: This is a ratio and proportion problem. We can use the components and dividendo rule or simple substitution to find the relationship between variables a and b, then plug them into the final expression.

Solution: 1. **Find Relationship:** $\frac{a+b}{a-b} = \frac{15}{1}$ Cross-multiplying: $a + b = 15a - 15b$ $16b = 14a \implies \frac{a}{b} = \frac{16}{14} = \frac{8}{7}$ 2. **Assign Values:** Let $a = 8$ and $b = 7$. 3. **Calculate Squares:** $a^2 = 64$, $b^2 = 49$ 4. **Calculate Target Ratio:** $a^2 - b^2 = 64 - 49 = 15$ $a^2 + b^2 = 64 + 49 = 113$ 5. **Final Ratio:** The value is 15 : 113.

Final Answer: 15:113

Answer: (A)

Q33.

Solution

Concept: Speed is defined as Distance ÷ Time. To convert speed from meters per minute (m/min) to kilometers per hour (km/h), we use the conversion factors: 1 km = 1000 m and 1 hour = 60 minutes.

Solution: 1. **Find Speed in m/min:** Speed = $\frac{600 \text{ meters}}{5 \text{ minutes}}$ = 120 m/min. 2. **Convert to m/hour:** Since there are 60 minutes in an hour: $120 \times 60 = 7,200$ meters/hour. 3. **Convert to km/hour:** Since 1000 meters = 1 km: $\frac{7,200}{1000}$ = 7.2 km/h.

Final Answer: 7.2 km/h

Answer: (B)

Q34.

Solution

Concept: This is a geographical fact regarding the topography of the Indian Peninsula. The Western Ghats house the highest peaks in South India.

Solution: 1. **Identification:** **Anamudi** is the highest peak in South India and the Western Ghats. 2. **Details:** It is located in the Idukki district of Kerala and has an elevation of 2,695 meters (8,842 ft). It is often referred to as the "Everest of South India." 3. **Comparison:** * Doddabetta is the highest peak in the Nilgiri Hills. * Mahendragiri is a prominent peak in the Eastern Ghats. * Kalsubai is the highest peak in Maharashtra.

Final Answer: Anamudi

Answer: (B)

Q35.

Solution

Concept: The volumes of basic 3D shapes are determined by their formulas. Volume of Cylinder = $\pi r^2 h$ Volume of Cone = $\frac{1}{3}\pi r^2 h$

Solution: 1. **Set Up Ratio:** Ratio = $\frac{\text{Volume of Cylinder}}{\text{Volume of Cone}}$ 2. **Substitute Formulas:** Ratio = $\frac{\pi r^2 h}{\frac{1}{3}\pi r^2 h}$ 3. **Simplify:** Since r and h are the same for both, $\pi r^2 h$ cancels out. Ratio = $\frac{1}{1/3}$ = 3. 4. **Final Expression:** The ratio is 3 : 1. (The cylinder is three times the volume of the cone).

Final Answer: 3:1

Answer: (B)

Q36.

Solution

Concept: When a train crosses a stationary pole or a point object, the distance covered by the train is equal to its own length. The basic formula used is Distance = Speed × Time.

Solution: 1. **Convert Speed:** The speed is given in km/h, but the time is in seconds. We must convert the speed to m/s. Speed = $90 \times \frac{5}{18}$ = 25 m/s. 2. **Apply Formula:** Length of train (Distance) = Speed × Time 3. **Calculate:** Length = 25 m/s × 10 seconds Length = 250 meters. 4. **Conclusion:** The length of the train is 250 m.

Final Answer: 250 m

Answer: (C)

Q37.

Solution

Concept: Blood relation problems are best solved by breaking down the statement into smaller parts and identifying the "reference person."

Solution: 1. **Analyze the statement:** "His mother is the only daughter of my mother." 2. **Identify the speaker's relation:** The woman says, "only daughter of my mother." 3. **Deduction:** The only daughter of the woman's mother is the **woman herself**. 4. **Link to the man:** The statement now simplifies to: "His (the man's) mother is **me** (the woman)." 5. **Conclusion:** Therefore, the woman is the mother of the man.

Final Answer: Mother

Answer: (A)

Q38.

Solution

Concept: The 42nd Constitutional Amendment Act of 1976, enacted during the Emergency, is often called the "Mini-Constitution" due to the extensive changes it made.

Solution: 1. **Preamble Changes:** This amendment is historically significant because it was the only time the Preamble of the Indian Constitution was amended. 2. **Added Words:** It added three new words to the Preamble: **Socialist**, **Secular**, and **Integrity**. 3. **Conclusion:** Among the given options, 'Socialist' was the word added by this specific amendment. Words like 'Republic', 'Democratic', and 'Sovereign' were part of the original Preamble.

Final Answer: Socialist

Answer: (B)

Q39.

Solution

Concept: This is an algebraic equation involving exponents. We use the laws of exponents, specifically $a^{m+n} = a^m \cdot a^n$, to factorize and solve for the unknown variable.

Solution: 1. **Factorize the expression:** $2^{x-1} + 2^{x+1} = 320$ $(\frac{2^x}{2}) + (2^x \cdot 2) = 320$ 2. **Take 2^x as common:** $2^x(\frac{1}{2} + 2) = 320$ $2^x(\frac{5}{2}) = 320$ 3. **Isolate 2^x:** $2^x = \frac{320 \times 2}{5}$ $2^x = 64 \times 2 = 128$ 4. **Solve for x:** We know that $128 = 2^7$. Therefore, $2^x = 2^7 \implies x = 7$.

Final Answer: 7

Answer: (B)

Q40.

Solution

Concept: In Syllogism, if all members of set A are in set B, and no members of set B are in set C, it logically follows that no members of set A can be in set C.

Solution: 1. **Statement 1:** "All pens are pencils." (Set 'Pens' is entirely inside 'Pencils'). 2. **Statement 2:** "No pencil is an eraser." (The set 'Pencils' and 'Erasers' are completely separate/disjoint). 3. **Evaluate Conclusion I:** "No eraser is a pen." Since all pens are inside pencils, and pencils don't touch erasers, pens can never touch erasers. This is true. 4. **Evaluate Conclusion II:** "No pen is an eraser." This is the same logical deduction as Conclusion I. This is also true. 5. **Conclusion:** Both conclusions follow logically.

Final Answer: Both I and II follow

Answer: (D)

Q41.

Solution

Concept: A nickname or sobriquet is often given to a city based on its major industry, geographical feature, or contribution to the economy. The term 'Silicon Valley' refers to a region that is a global center for high technology and innovation.

Solution: 1. **Identification:** **Bengaluru** (formerly Bangalore) is known as the 'Silicon Valley of India'. 2. **Reasoning:** It is the nation's leading information technology (IT) exporter. The city houses the headquarters of major Indian IT companies like Infosys and Wipro, as well as the Indian hubs for global giants like Google, Microsoft, and Amazon. 3. **Comparison:** * Hyderabad is often called 'Cyberabad'. * Pune is known as the 'Oxford of the East'. * Chennai is known as the 'Detroit of India' due to its automobile industry.

Final Answer: Bengaluru

Answer: (C)

Q42.

Solution

Concept: Magnetic Flux (Φ) is a measurement of the total magnetic field which passes through a given area. In physics, it is important to distinguish between the unit for the field strength and the unit for the total flux.

Solution: 1. **Units in Magnetism:** * **Weber (Wb):** This is the SI unit of **Magnetic Flux**. One Weber is the amount of flux that, linking a circuit of one turn, would produce in it an electromotive force of 1 volt if it were reduced to zero at a uniform rate in 1 second. * **Tesla (T):** This is the unit for Magnetic Flux Density (Magnetic Field strength). * **Henry (H):** This is the unit for Inductance. * **Watt (W):** This is the unit for Power.

Final Answer: Weber

Answer: (B)

Q43.

Solution

Concept: This is a percentage comparison problem. If one value is greater than another by a certain percentage ($r\%$), the percentage by which the second is smaller than the first is calculated as:

$$\text{Percentage Less} = \left(\frac{r}{100 + r}\right) \times 100$$

Solution: 1. **Method 1 (Assumption):** Let $B = 100$. Since A is 25% more than B, $A = 100 + 25 = 125$. 2. **Find the Difference:** The difference between A and B is 25. 3. **Calculate Percentage Less:** We need to find how much B is less than A. Here, A is the base. Percentage $= \left(\frac{25}{125}\right) \times 100$ Percentage $= \left(\frac{1}{5}\right) \times 100 = 20\%$.

Final Answer: 20

Answer: (A)

Q44.

Solution

Concept: In alternating series, two different mathematical patterns run simultaneously at the odd and even positions of the sequence. To solve this, we separate the numbers into two groups.

Solution: 1. **Analyze Odd Positions (1st, 3rd, 5th, 7th):** * $1, 27, 125, ?$ * $1 = 1^3$ * $27 = 3^3$ * $125 = 5^3$ * The pattern is cubes of consecutive odd numbers $(1, 3, 5)$. The next should be 7^3. 2. **Analyze Even Positions (2nd, 4th, 6th):** * $4, 16, 36$ * $4 = 2^2$ * $16 = 4^2$ * $36 = 6^2$ * This pattern is squares of consecutive even numbers. 3. **Calculate the Missing Term:** The missing term is at the 7^{th} position, which belongs to the "cubes" pattern. $7^3 = 7 \times 7 \times 7 = 343$.

Final Answer: 343

Answer: (C)

Q45.

Solution

Concept: This is a Current Affairs question regarding the ICC Men's Cricket World Cup, which is the premier international championship of One Day International (ODI) cricket.

Solution: 1. **The Event:** The 13^{th} edition of the Cricket World Cup was hosted entirely by India from October to November 2023. 2. **The Final:** The final match was played between India and Australia at the Narendra Modi Stadium in Ahmedabad. 3. **Outcome:** **Australia** won the match by 6 wickets, securing their record-extending sixth World Cup title. Travis Head was named the Player of the Match for his century in the final.

Final Answer: Australia

Answer: (B)

Q46.

Solution

Concept: The human eye is a complex organ that adjusts to varying light intensities. This process, known as adaptation, involves specific structures that regulate the diameter of the opening through which light enters.

Solution: 1. **The Iris:** The **Iris** is the colored, muscular part of the eye. It acts like the shutter of a camera. 2. **Mechanism:** The iris contains two sets of muscles that contract or relax to change the size of the **Pupil** (the central opening). 3. **Regulation:** In bright light, the iris causes the pupil to constrict (shrink) to prevent too much light from entering. In dim light, the iris causes the pupil to dilate (expand) to allow more light in for better vision. 4. **Other Parts:** The Retina is the light-sensitive screen; the Cornea is the outer protective layer; the Pupil is the actual hole, but it is "controlled" by the Iris.

Final Answer: Iris

Answer: (B)

Q47.

Solution

Concept: After independence, India adopted a planned economic development model. Each Five-Year Plan was influenced by specific economic theories or strategies aimed at addressing the nation's immediate needs.

Solution: 1. **First Five-Year Plan (1951–1956):** This plan was based on the **Harrod-Domar Model**, which suggested that economic growth depends on the level of savings and the capital-output ratio. 2. **Primary Focus:** The main objective was to improve the agricultural sector, as the country was facing a severe food shortage and high inflation following partition. 3. **Success:** The plan was highly successful, achieving a growth rate of 3.6%, which was higher than the target of 2.1%. 4. **Note:** The Mahalanobis Model was the basis for the Second Five-Year Plan, which focused on heavy industrialization.

Final Answer: Harrod-Domar Model

Answer: (B)

Q48.

Solution

Concept: This is a Profit and Loss problem involving "Quantity" rather than "Price." When the price is constant, the relationship between the number of items bought/sold and the profit/loss percentage is inverse.

Solution: 1. **Understand Cost Price (CP):** The vendor buys 6 toffees for ₹ 1. 2. **Identify Desired Gain:** The vendor wants a 20% gain. This means the Selling Price (SP) should be 120% of the CP. 3. **Mathematical Relationship:** To gain 20%, the number of items sold for the same amount must be reduced.

$$\text{Items to be sold} = \frac{\text{Original Quantity}}{100 + \text{Profit \%}} \times 100$$

4. **Calculate:**

$$\text{Items} = \frac{6}{120} \times 100$$

$$\text{Items} = \frac{1}{20} \times 100 = 5$$

5. **Conclusion:** He must sell 5 toffees for a rupee to earn a 20% profit.

Final Answer: 5

Answer: (C)

Q49.

Solution

Concept: International conventions are created to protect specific types of ecosystems. The Ramsar Convention is one of the oldest intergovernmental treaties signed to preserve the ecological character of a specific habitat.

Solution: 1. **History:** The convention was signed in 1971 in the Iranian city of Ramsar. 2. **Primary Objective:** It provides the framework for the conservation and wise use of **Wetlands** and their resources. 3. **Significance:** Wetlands (like swamps, marshes, and lakes) are vital for biodiversity, flood control, and water purification. Sites of international importance are designated as "Ramsar Sites." 4. **Comparison:** Forests are often covered by UNFF; Oceans by UNCLOS; Drylands by UNCCD.

Final Answer: Wetlands

Answer: (B)

Q50.

Solution

Concept: General awareness often includes famous contemporary literature and non-fiction written by Nobel laureates or internationally acclaimed Indian authors.

Solution: 1. **The Book:** 'The Argumentative Indian' is a collection of essays that discusses India's history and identity, focusing on the tradition of public debate and intellectual pluralism. 2. **The Author:** It was written by **Amartya Sen**, the renowned Indian economist and philosopher who won the Nobel Prize in Economic Sciences in 1998. 3. **Themes:** In this book, Sen argues that the history of heterodoxy and internal dialogue is essential for the success of Indian democracy. 4. **Other Authors:** Arundhati Roy wrote 'The God of Small Things'; Vikram Seth wrote 'A Suitable Boy'.

Final Answer: Amartya Sen

Answer: (B)

Answer Key

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