

TANCET Reasoning

Sample Paper – 7

Duration: 60 Minutes

Maximum Marks: 50

Instructions

- This paper contains **50 MCQs** (single correct answer), modelled on the Reasoning sections of the **TANCET MCA** entrance examination.
- **Part A** (Q1–Q25): Analytical Reasoning. **Part B** (Q26–Q50): Logical Reasoning. Each part carries **25 marks**.
- Each correct answer carries **+1 mark**. Each wrong answer carries a penalty of $-\frac{1}{4}$ **mark**. Unattempted questions carry **no penalty**.
- **Only one** option is correct for each question.
- Personal calculators, mobile phones, and electronic gadgets are **strictly prohibited**. Rough work may be done in the space provided on the question paper.

Part A: Analytical Reasoning (Q1–Q25, 25 Marks)

Q1. Study the following number series and identify the term that comes next.

–1, 2, 7, 14, 23, ?

Each term follows the rule $n^2 - 2$ for successive values of n .

(A) 34

(B) 32

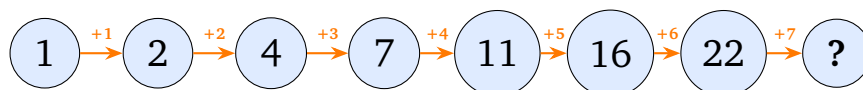
(C) 29

(D) 36

Q2. In the series below, the differences between consecutive terms form consecutive integers. Find the missing term.

1, 2, 4, 7, 11, 16, 22, ?

The diagram below shows the step-wise differences:



(A) 25



- (B) 27
- (C) 29
- (D) 31

Q3. Each term of the following series is of the form $2^n - 2$ for successive values of n . What is the next term?

0, 2, 6, 14, 30, 62, ?

- (A) 122
- (B) 126
- (C) 128
- (D) 130

Q4. The series below follows an alternating rule: subtract 5, then multiply by 2, then subtract 5, and so on. What is the next term?

100, 95, 190, 185, 370, 365, ?

- (A) 720
- (B) 725
- (C) 728
- (D) 730

Q5. The series below lists composite numbers (non-prime, non-unity) in ascending order. What is the next term?

4, 6, 8, 9, 10, 12, 14, ?

- (A) 15
- (B) 16
- (C) 17
- (D) 18

Q6. The series below consists of three interleaved arithmetic progressions. Identify the next term.



5, 7, 9, 10, 14, 18, 15, 21, 27, ?

(AP₁: 5, 10, 15, ... with common difference +5; AP₂: 7, 14, 21, ... with +7; AP₃: 9, 18, 27, ... with +9)

(A) 18

(B) 19

(C) 20

(D) 24

Q7. Complete the analogy by choosing the most appropriate pair.

SHAKESPEARE : HAMLET :: RABINDRANATH TAGORE : ?

(A) GORA

(B) KABULIWALA

(C) RAMAYANA

(D) GITANJALI

Q8. Identify the relationship between the first pair and complete the analogy.

THERMOMETER : TEMPERATURE :: SEISMOGRAPH : ?

(A) WAVES

(B) WIND

(C) EARTHQUAKES

(D) VIBRATIONS

Q9. Based on the relationship between a country and its currency, complete the analogy.

INDIA : RUPEE :: JAPAN : ?

(A) POUND

(B) YEN

(C) EURO

(D) DOLLAR



Q10. The first pair shows the relationship between an art form and its practitioner. Apply the same logic.

SCULPTURE : SCULPTOR :: PHOTOGRAPHY : ?

- (A) PHOTOGRAPHER
- (B) PHOTOGRAPH
- (C) PHOTO
- (D) ARTIST

Q11. The first pair shows an emotion and its most intense form. Complete the analogy.

ANGER : RAGE :: JOY : ?

- (A) HAPPINESS
- (B) PLEASURE
- (C) DELIGHT
- (D) ECSTASY

Q12. In a certain code, each letter of a word is shifted forward in the alphabet by a number equal to its position in the word (1st letter moves +1, 2nd letter moves +2, 3rd letter moves +3, and so on). Using this rule, how is the word **DOG** coded?

(Example check: D is the 1st letter, so $D(4) + 1 = E(5)$; O is the 2nd letter, so $O(15) + 2 = Q(17)$; G is the 3rd letter, so $G(7) + 3 = J(10)$.)

- (A) EQK
- (B) EQJ
- (C) EPJ
- (D) FQJ

Q13. In a special code, only the letters at *even positions* (2nd, 4th, 6th, ...) of a word are written, in order. Using this rule, what is the code for the word **MINE**?

(Example: PENCIL → positions 2,4,6 are E,C,L → code is ECL.)



- (A) IN
- (B) MN
- (C) IE
- (D) NE

Q14. In a particular code, the last letter of a word is moved to the front, and the remaining letters follow in their original order. Using this rule, how is the word **MAGIC** coded?

(Example: BOARD $\rightarrow$ last letter D moved to front $\rightarrow$ DBOAR.)

- (A) CMAGI
- (B) MAGIC
- (C) AGICM
- (D) ICMAG

Q15. In a certain code, every vowel is replaced by the next vowel in the cyclic sequence (a $\rightarrow$ e, e $\rightarrow$ i, i $\rightarrow$ o, o $\rightarrow$ u, u $\rightarrow$ a); consonants remain unchanged. How is the word **NINE** coded?

- (A) NUNE
- (B) NONE
- (C) NINE
- (D) NONI

Q16. In a code, each letter is shifted backward by 2 positions in the alphabet (C $\rightarrow$ A, D $\rightarrow$ B, A $\rightarrow$ Y, B $\rightarrow$ Z, etc.). Using this rule, how is the word **MINE** coded?

(Example: COLD $\rightarrow$ C-2=A, O-2=M, L-2=J, D-2=B $\rightarrow$ AMJB.)

- (A) KGLC
- (B) KHLC
- (C) JGLC
- (D) KGLB



Q17. Three of the following four words belong to the same category. Identify the **odd one out**.

DEMOCRACY, ARISTOCRACY, MONARCHY, TECHNOLOGY

- (A) DEMOCRACY
- (B) TECHNOLOGY
- (C) MONARCHY
- (D) ARISTOCRACY

Q18. Three of the following four sports are played on foot. Identify the **odd one out**.

POLO, CRICKET, HOCKEY, TENNIS

- (A) POLO
- (B) CRICKET
- (C) HOCKEY
- (D) TENNIS

Q19. Three of the following four letter groups follow the pattern where each letter is exactly 3 positions ahead of the previous one in the alphabet. Identify the **odd one out**.

DGJ, EHK, GJN, FIL

- (A) DGJ
- (B) EHK
- (C) GJN
- (D) FIL

Q20. Three of the following four numbers are perfect squares. Identify the one that is **NOT** a perfect square.

121, 144, 169, 192

- (A) 121
- (B) 144



- (C) 169
(D) 192

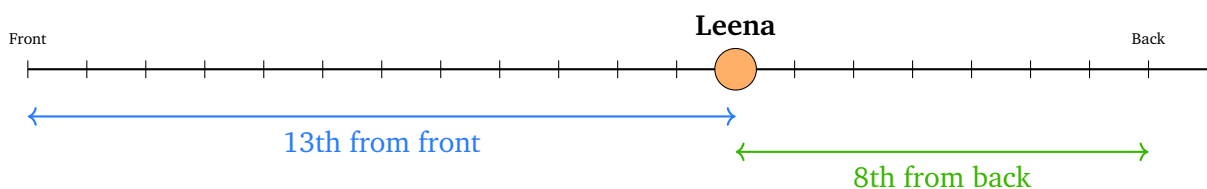
Q21. Five students — P, Q, R, S, and T — scored different marks in a test. Study the clues and answer the question.

- R scored higher than P.
- P scored higher than Q.
- Q scored higher than S.
- S scored higher than T.

Who scored the **2nd highest**?

- (A) R
(B) P
(C) Q
(D) T

Q22. In a row of students, Leena is **13th from the front** and **8th from the back**. How many students are there in the row in total?



- (A) 18
(B) 19
(C) 20
(D) 21

Q23. In a class, Sanjay's rank is **10th from the top** and **15th from the bottom**. How many students are there in the class?

- (A) 24
(B) 25



(C) 26

(D) 27

Q24. Five people — Amar, Bimal, Chandan, Dinesh, and Esha — are standing in a row. Study the clues and find who is at the **3rd position from the left**.

- Chandan is at the extreme left end.
- Esha is at the extreme right end.
- Dinesh is immediately to the left of Esha.
- Amar is not at either end.
- Bimal is immediately to the right of Amar.

(A) Amar

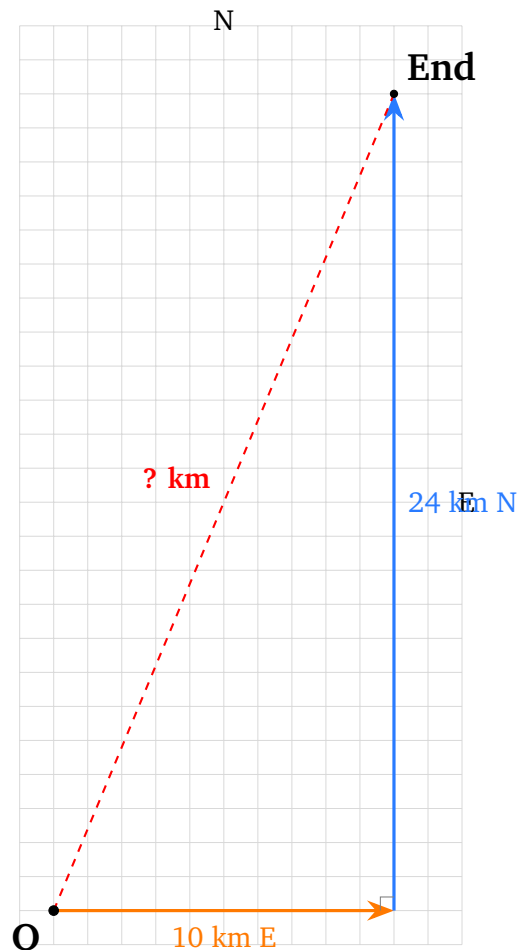
(B) Dinesh

(C) Chandan

(D) Bimal

Q25. A person starts from point O, walks **10 km East**, and then turns left and walks **24 km North**. What is the straight-line distance from the starting point O to the final position?





- (A) 24 km
- (B) 26 km
- (C) 28 km
- (D) 30 km

Part B: Logical Reasoning (Q26–Q50, 25 Marks)

Q26. “Ravi is the son of the brother of my mother.” How is Ravi related to the speaker?

- (A) Brother
- (B) Nephew
- (C) Cousin
- (D) Uncle

Q27. Study the family information and answer the question.



- A is the father of B.
- C is the wife of A.
- D is the brother of B.
- E is the daughter of D.

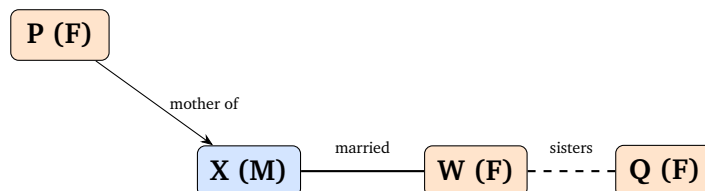
How is E related to C?

- (A) Daughter
- (B) Granddaughter
- (C) Niece
- (D) Great-granddaughter

Q28. Study the family information carefully and answer the question.

Family Details:

- W is the wife of X.
- P is the mother of X.
- Q is the sister of W.



How is X related to Q?

- (A) Uncle
- (B) Cousin
- (C) Father-in-law
- (D) Brother-in-law

Q29. A coded family relation scheme is defined as follows:

- $P \diamond Q$ means P is the *sister* of Q.
- $P \bullet Q$ means P is the *husband* of Q.



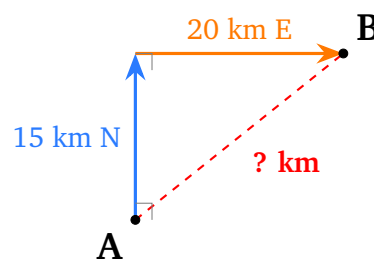
- $P \blacktriangle Q$ means P is the *parent* of Q.

Given the expression $P \blacklozenge Q \bullet R \blacktriangle S$: P is the sister of Q; Q is the husband of R; R is the parent of S.

How is P related to S?

- (A) Aunt
- (B) Mother
- (C) Sister
- (D) Cousin

Q30. A man walks **15 km North** from point A, then turns right and walks **20 km East** to reach point B. What is the straight-line distance from A to B?



- (A) 20 km
- (B) 22 km
- (C) 24 km
- (D) 25 km

Q31. Renu initially faces **East**. She turns **90° to the left**, then turns **90° to the right**, and then turns **90° to the right** again. In which direction is she facing finally?

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



Q32. Rani starts at point O, walks **4 km North** to reach point A, then turns right and walks **3 km East** to reach point B, and then turns right and walks **4 km South** to reach point C. In which direction must she walk from C to return directly to O?

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

Q33. Statements:

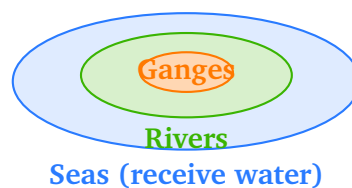
All rivers flow into the sea.

The Ganges is a river.

Conclusions:

I. The Ganges flows into the sea.

II. Some seas receive river water.



Which conclusion(s) follow?

- (A) Only I follows
- (B) Only II follows
- (C) Both I and II follow
- (D) Neither follows

Q34. Statements:

Some flowers are red.

All red things are beautiful.

Conclusions:

I. Some flowers are beautiful.

II. All beautiful things are flowers.



Which conclusion(s) follow?

- (A) Only I follows
- (B) Only II follows
- (C) Both I and II follow
- (D) Neither follows

Q35. Statements:

No squares are circles.

Some circles are triangles.

Conclusions:

- I. No squares are triangles.
- II. Some triangles are not squares.



Which conclusion(s) follow?

- (A) Only I follows
- (B) Both I and II follow
- (C) Neither follows
- (D) Only II follows

Q36. Statements:

All men are mortal.

Socrates is a man.

Conclusions:

- I. Socrates is mortal.
- II. All mortals are men.

Which conclusion(s) follow?

- (A) Both I and II follow
- (B) Only I follows



- (C) Neither follows
- (D) Only II follows

Q37. Statements:

Some vegetables are green.
Some green things are edible.

Conclusions:

- I. Some vegetables are edible.
- II. Some edible things are vegetables.

Which conclusion(s) follow?

- (A) Both I and II follow
- (B) Only I follows
- (C) Neither follows
- (D) Only II follows

Q38. Statement: “Reading books daily improves vocabulary and analytical skills.”

Courses of Action:

- I. Schools should include daily reading sessions in the curriculum.
- II. Libraries should be set up in every village.

Which course(s) of action follow logically?

- (A) Only I follows
- (B) Only II follows
- (C) Neither follows
- (D) Both I and II follow

Q39. Statement: “Price of petrol has increased by 20% this month.”

Conclusions:

- I. Cost of transportation will rise.
- II. People will start using bicycles more frequently.

Which conclusion(s) follow?



- (A) Only I follows
- (B) Only II follows
- (C) Both I and II follow
- (D) Neither follows

Q40. Statement: “All students who appeared in the national science olympiad scored above average.”

Conclusions:

- I. All above-average students appeared in the olympiad.
- II. The olympiad was difficult.

Which conclusion(s) follow?

- (A) Only I follows
- (B) Only II follows
- (C) Neither follows
- (D) Both I and II follow

Q41. Statement: “Books borrowed more than 3 weeks ago must be returned immediately or a late fine will be imposed.”

Assumptions:

- I. Some borrowers have not returned books on time.
- II. Late fines serve as effective deterrents against overdue books.

Which assumption(s) are implicit?

- (A) Only II is implicit
- (B) Both I and II are implicit
- (C) Only I is implicit
- (D) Neither is implicit

Q42. Statement: “Young people spend excessive time on social media, often affecting academic performance.”

Conclusions:

- I. Social media should be banned for people under 18.



II. Parents should monitor and limit social media usage for their children.

Which conclusion(s) follow?

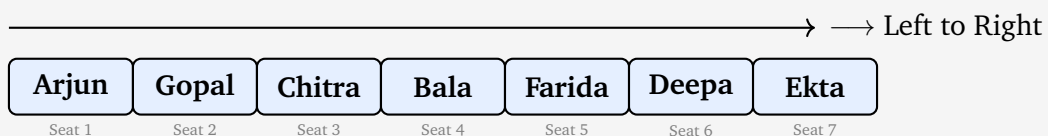
- (A) Both I and II follow
- (B) Only I follows
- (C) Neither follows
- (D) Only II follows

Directions (Q43–Q48): Read the seating arrangement information carefully and answer the questions that follow.

Seating Arrangement:

Seven people — Arjun, Bala, Chitra, Deepa, Ekta, Farida, and Gopal — sit in a straight row, all facing **North**.

- Arjun is at the extreme left end.
- Gopal is immediately to the right of Arjun.
- Bala is the 4th person from the left.
- Ekta is at the extreme right end.
- Deepa is immediately to the left of Ekta.
- Farida is immediately to the right of Bala.



The arrangement from left to right is: **Arjun(1) – Gopal(2) – Chitra(3) – Bala(4) – Farida(5) – Deepa(6) – Ekta(7).**

Q43. Who is at the **3rd position from the left**?

- (A) Chitra
- (B) Gopal
- (C) Farida



(D) Bala

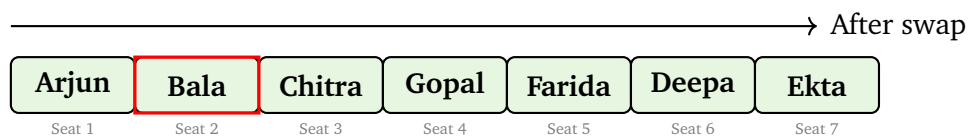
Q44. Who is seated **immediately to the left of Farida**?

- (A) Chitra
- (B) Deepa
- (C) Ekta
- (D) Bala

Q45. How many people are seated **between Gopal and Ekta**?

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

Q46. If **Gopal and Bala swap** their seats, who will be at the **2nd position from the left**?



- (A) Arjun
- (B) Bala
- (C) Chitra
- (D) Gopal

Q47. What is **Farida's position from the right end of the row**?

- (A) 1st
- (B) 2nd
- (C) 4th
- (D) 3rd



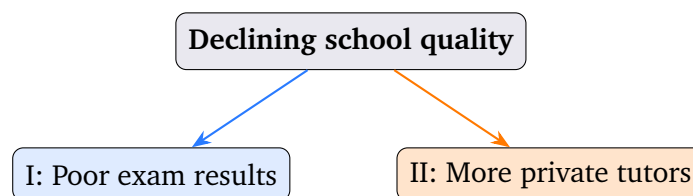
Q48. Who are the **immediate neighbours** of Chitra?

- (A) Gopal and Bala
- (B) Arjun and Bala
- (C) Gopal and Chitra
- (D) Bala and Farida

Q49. Study the two statements and decide the relationship between them.

Statement I: Students in the city are performing poorly in examinations.

Statement II: Parents are increasingly hiring private tutors for their children.



Options:

- (A) Statement I is the cause; Statement II is the effect.
- (B) Statement II is the cause; Statement I is the effect.
- (C) Both are effects of a common underlying cause.
- (D) Both are independent causes.

Q50. Assertion (A): Heavy physical exercise should be avoided during illness.

Reason (R): Physical exercise improves stamina.

Select the correct option:

- (A) Both A and R are true, and R is the correct reason for A.
- (B) Both A and R are true, but R is NOT the correct reason for A.
- (C) A is true, but R is false.
- (D) A is false, but R is true.



Detailed Solutions

Solution

Q1 — Number Series: $n^2 - 2$ Rule

Concept — Perfect-Square Minus 2: Each term is generated by $T_n = n^2 - 2$ for $n = 1, 2, 3, \dots$

Step 1 — Verify the pattern:

$$1^2 - 2 = -1, \quad 2^2 - 2 = 2, \quad 3^2 - 2 = 7, \quad 4^2 - 2 = 14, \quad 5^2 - 2 = 23$$

Step 2 — Find the next term ($n = 6$):

$$6^2 - 2 = 36 - 2 = 34$$

Why other options are wrong:

- (B) 32: Would require $6^2 = 34$ which is incorrect – $6^2 = 36$, so $36 - 2 = 34$ not 32.
- (C) 29: Underestimates $6^2 - 2$ by 5.
- (D) 36: Ignores the -2 part; $6^2 = 36$ but the rule requires subtracting 2.

Answer: (A) [Go Back to Q 1](#)

Solution

Q2 — Number Series: Differences Form Consecutive Integers

Concept — Incrementing Differences: The difference between consecutive terms increases by 1 each time: $+1, +2, +3, +4, +5, +6, +7, \dots$

Step 1 — Trace the differences:

$$1 \xrightarrow{+1} 2 \xrightarrow{+2} 4 \xrightarrow{+3} 7 \xrightarrow{+4} 11 \xrightarrow{+5} 16 \xrightarrow{+6} 22 \xrightarrow{+7} ?$$

Step 2 — Next term: The 7th difference is $+7$, so the missing term $= 22 + 7 = 29$.

Why other options are wrong:

- (A) 25: Adds only $+3$ – uses the difference from an earlier position.
- (B) 27: Adds $+5$ – skips the correct step of $+7$.
- (D) 31: Adds $+9$ – jumps one step too far in the difference sequence.



Answer: (C) [Go Back to Q 2](#)

Solution

Q3 — Number Series: $2^n - 2$ Rule

Concept — Powers of 2 Minus 2: Each term is $T_n = 2^n - 2$ for $n = 1, 2, 3, \dots$

Step 1 — Verify the pattern:

$$2^1 - 2 = 0, \quad 2^2 - 2 = 2, \quad 2^3 - 2 = 6, \quad 2^4 - 2 = 14, \quad 2^5 - 2 = 30, \quad 2^6 - 2 = 62$$

Step 2 — Next term ($n = 7$):

$$2^7 - 2 = 128 - 2 = 126$$

Why other options are wrong:

- (A) 122: Subtracts 6 from 128 instead of 2 – over-subtracted.
- (C) 128: Forgets to subtract 2; $2^7 = 128$ alone.
- (D) 130: Adds 2 instead of subtracting 2 – reverses the rule.

Answer: (B) [Go Back to Q 3](#)

Solution

Q4 — Number Series: Alternating -5 and $\times 2$ Rule

Concept — Alternating Two Operations: The series alternates between subtracting 5 and multiplying by 2.

Step 1 — Trace the pattern:

$$100 \xrightarrow{-5} 95 \xrightarrow{\times 2} 190 \xrightarrow{-5} 185 \xrightarrow{\times 2} 370 \xrightarrow{-5} 365 \xrightarrow{\times 2} ?$$

Step 2 — Next term: The next operation after -5 is $\times 2$: $365 \times 2 = 730$.

Why other options are wrong:

- (A) 720: Would mean $365 \times 2 - 10$, which is not the rule.
- (B) 725: Suggests $365 + 360$ – no such rule applies here.
- (C) 728: Off by 2 from the correct answer; no justification.



Answer: (D) [Go Back to Q 4](#)

Solution

Q5 — Number Series: Composite Numbers in Ascending Order

Concept — Composite Numbers: A composite number has more than two factors (it is neither 1 nor a prime). The sequence of composites in order is: 4, 6, 8, 9, 10, 12, 14, 15, 16, ...

Step 1 — Verify the series: 4, 6, 8, 9, 10, 12, 14 are all composite. (Note: 9 is composite, $9 = 3 \times 3$.)

Step 2 — Next composite after 14: 15 is the next number. Is 15 composite? Yes: $15 = 3 \times 5$. So the answer is 15.

Why other options are wrong:

- (B) 16: 16 is composite, but 15 comes before it and is also composite, making 15 the immediate next term.
- (C) 17: 17 is prime, not a composite number.
- (D) 18: Also composite, but 15 and 16 come before it.

Answer: (A) [Go Back to Q 5](#)

Solution

Q6 — Number Series: Three Interleaved Arithmetic Progressions

Concept — Interleaved APs: The series contains three APs woven together. Taking alternate-every-3rd terms:

- AP_1 (positions 1, 4, 7, 10, ...): 5, 10, 15, **20**, ... (common difference +5)
- AP_2 (positions 2, 5, 8, ...): 7, 14, 21, ... (common difference +7)
- AP_3 (positions 3, 6, 9, ...): 9, 18, 27, ... (common difference +9)

Step 1 — Identify the 10th position: Position 10 belongs to AP_1 . The sequence in AP_1 is 5, 10, 15, ... so the 4th term of AP_1 is 20.

Step 2 — Answer: The missing term is 20.

Why other options are wrong:

- (A) 18: This would continue AP_2 's pattern at the wrong position.



- (B) 19: Not in any of the three APs at this position.
- (D) 24: Would belong to AP_2 at the next step ($21 + 3$, incorrect) – not position 10.

Answer: (C) [Go Back to Q 6](#)

Solution

Q7 — Analogy: Author–Work

Concept — Literary Authorship: The second word is a famous literary work created by the author named in the first word.

Step 1 — Identify the relationship: SHAKESPEARE wrote HAMLET. Rabindranath Tagore's most celebrated work (for which he received the Nobel Prize in Literature in 1913) is GITANJALI.

Why other options are wrong:

- (A) GORA: A novel by Tagore, but not his most iconic internationally recognised work.
- (B) KABULIWALA: A short story by Tagore – well known but not his Nobel-winning work.
- (C) RAMAYANA: An ancient epic; not authored by Rabindranath Tagore.

Answer: (D) [Go Back to Q 7](#)

Solution

Q8 — Analogy: Measurement Instrument

Concept — Instrument and Measured Quantity: The first word is a scientific instrument; the second word is the physical quantity or phenomenon it measures.

Step 1 — Identify the relationship: A THERMOMETER measures TEMPERATURE. A SEISMOGRAPH measures the intensity and pattern of EARTHQUAKES (seismic waves).

Why other options are wrong:

- (A) WAVES: An anemometer measures wind, not waves; seismograph specifically records seismic/earthquake activity.
- (B) WIND: Wind is measured by an anemometer, not a seismograph.
- (D) VIBRATIONS: Too vague – a seismograph's primary designation is for earthquakes.



Answer: (C) [Go Back to Q 8](#)

Solution

Q9 — Analogy: Country–Currency

Concept — National Currency: The second word is the official currency of the country named in the first word.

Step 1 — Identify the relationship: INDIA uses RUPEE as its currency. Japan's official currency is the YEN.

Why other options are wrong:

- (A) POUND: The currency of the United Kingdom, not Japan.
- (C) EURO: The currency of most European Union member states, not Japan.
- (D) DOLLAR: Used by the USA, Canada, Australia, and others – not Japan.

Answer: (B) [Go Back to Q 9](#)

Solution

Q10 — Analogy: Art Form–Practitioner

Concept — Practitioner of an Art: The second word is the person who practices the art or craft named in the first word.

Step 1 — Identify the relationship: SCULPTURE is practised by a SCULPTOR. PHOTOGRAPHY is practised by a PHOTOGRAPHER.

Why other options are wrong:

- (B) PHOTOGRAPH: A photograph is the product/output of photography, not the practitioner.
- (C) PHOTO: An informal shortening of photograph – still refers to the product, not the person.
- (D) ARTIST: Too generic; a photographer is specifically called a photographer, not just an artist.

Answer: (A) [Go Back to Q 10](#)



Solution**Q11 — Analogy: Emotion and Its Most Intense Form**

Concept — Degree of Emotion: The second word represents the extreme or most intense version of the emotion named in the first word.

Step 1 — Identify the relationship: RAGE is the most intense form of ANGER. ECSTASY is the most intense, overwhelming form of JOY.

Why other options are wrong:

- (A) HAPPINESS: A moderate level of joy – not the most extreme intensity.
- (B) PLEASURE: A mild or moderate positive feeling – less intense than ecstasy.
- (C) DELIGHT: Stronger than pleasure but still not the extreme pinnacle of joy that ecstasy represents.

Answer: (D) [Go Back to Q 11](#)

Solution**Q12 — Coding–Decoding: Position-Based Forward Shift**

Concept — Variable Caesar Cipher: The k th letter of the word is shifted forward by k positions in the alphabet.

Step 1 — Encode DOG:

$$D(4) + 1 = E(5), \quad O(15) + 2 = Q(17), \quad G(7) + 3 = J(10)$$

DOG $\rightarrow$ EQJ.

Step 2 — Verify each letter: E is the 5th letter ✓; Q is the 17th letter ✓; J is the 10th letter ✓.

Why other options are wrong:

- (A) EQK: K is the 11th letter; $G+3=10=J$, not K.
- (C) EPJ: P is the 16th letter; $O+2=17=Q$, not P.
- (D) FQJ: F is the 6th letter; $D+1=5=E$, not F.

Answer: (B) [Go Back to Q 12](#)



Solution**Q13 — Coding–Decoding: Even-Position Letters Only**

Concept — Positional Filtering: Only the letters at even positions (2nd, 4th, 6th, ...) of the word form the code, in order.

Step 1 — Apply to MINE: M(1), I(2), N(3), E(4). Even positions: position 2 = I, position 4 = E.

Code = IE.

Why other options are wrong:

- (A) IN: I and N – uses positions 2 and 3 (N is at an odd position, not even).
- (B) MN: M is at position 1 (odd); N is at position 3 (odd) – neither is at an even position.
- (D) NE: N is at position 3 (odd); E is at position 4 (even) – N should not be included.

Answer: (C) [Go Back to Q 13](#)

Solution**Q14 — Coding–Decoding: Last Letter Moved to Front**

Concept — Cyclic Letter Shift: The last letter of the word is detached and placed at the very beginning; the remaining letters follow in their original sequence.

Step 1 — Apply to MAGIC: MAGIC: M(1), A(2), G(3), I(4), C(5). Last letter = C; remaining letters in order = M, A, G, I.

Code = C + MAGI = CMAGI.

Step 2 — Verify with the example: BOARD: B, O, A, R, D. Last = D; remaining = B, O, A, R. Code = DBOAR. ✓

Why other options are wrong:

- (B) MAGIC: Unchanged – the rule was not applied.
- (C) AGICM: The letters are rearranged incorrectly – not the rule described.
- (D) ICMAG: Appears to reverse the word partially; not consistent with the stated rule.

Answer: (A) [Go Back to Q 14](#)



Solution**Q15 — Coding–Decoding: Cyclic Vowel Replacement**

Concept — Vowel Cycling ($a \rightarrow e \rightarrow i \rightarrow o \rightarrow u \rightarrow a$): Each vowel in the word is replaced by the next vowel in the cyclic sequence; consonants remain unchanged.

Step 1 — Encode NINE: N – consonant, unchanged $\rightarrow$ N.

I – vowel; next vowel after I is O.

N – consonant $\rightarrow$ N.

E – vowel; next vowel after E is I.

NINE $\rightarrow$ NONI.

Why other options are wrong:

- (A) NUNE: U replaces I (skips O); and N at the end suggests $E \rightarrow U$ (skipping the I step) – both vowels are advanced by two steps, not one.
- (B) NONE: O replaces I (correct), but E stays as E instead of becoming I.
- (C) NINE: Unchanged – the coding rule was not applied.

Answer: (D) [Go Back to Q 15](#)

Solution**Q16 — Coding–Decoding: Backward Shift of -2**

Concept — Reverse Caesar Cipher (-2): Each letter is replaced by the letter that is 2 positions earlier in the alphabet. When necessary, the alphabet wraps: $A \rightarrow Y$, $B \rightarrow Z$.

Step 1 — Encode MINE:

$$M(13) - 2 = K(11), \quad I(9) - 2 = G(7), \quad N(14) - 2 = L(12), \quad E(5) - 2 = C(3)$$

MINE $\rightarrow$ KGLC.

Step 2 — Verify with COLD $\rightarrow$ AMJB: $C(3) - 2 = A(1) \checkmark$, $O(15) - 2 = M(13) \checkmark$, $L(12) - 2 = J(10) \checkmark$, $D(4) - 2 = B(2) \checkmark$.

Why other options are wrong:

- (B) KHLG: H is the 8th letter; $I - 2 = 7 = G$, not H.
- (C) JGLC: J is the 10th letter; $M - 2 = 11 = K$, not J.
- (D) KGLB: B is the 2nd letter; $E - 2 = 3 = C$, not B.

Answer: (A) [Go Back to Q 16](#)



Solution**Q17 — Classification: Forms of Government**

Concept — Political Systems: Three of the four words are systems of government; one is not.

Step 1 — Classify each word: DEMOCRACY – a system of government by the people. ✓

ARISTOCRACY – a system ruled by a privileged elite class. ✓

MONARCHY – a system ruled by a king or queen. ✓

TECHNOLOGY – the application of science and tools; not a form of government.

Step 2 — Odd one out: TECHNOLOGY is the odd one out.

Why other options are wrong:

- (A) DEMOCRACY: A recognised form of government.
- (C) MONARCHY: A recognised form of government.
- (D) ARISTOCRACY: A recognised form of government.

Answer: (B) [Go Back to Q 17](#)

Solution**Q18 — Classification: Sport Played on Horseback**

Concept — Mode of Play: Three sports are played on foot; one is played on horseback.

Step 1 — Classify each sport: POLO – played on horseback (riders strike a ball with mallets while riding). **Different mode.**

CRICKET – played on foot on a pitch. ✓

HOCKEY – played on foot (or ice) with a stick. ✓

TENNIS – played on foot on a court. ✓

Step 2 — Odd one out: POLO is the odd one out – it is the only sport played on horseback.

Why other options are wrong:

- (B) CRICKET: Played on foot – belongs to the main group.
- (C) HOCKEY: Played on foot – belongs to the main group.
- (D) TENNIS: Played on foot – belongs to the main group.

Answer: (A) [Go Back to Q 18](#)



Solution**Q19 — Classification: Letter Groups with +3 Gap**

Concept — Constant Alphabetical Gap: In a valid group, each successive letter is exactly 3 positions after the previous one.

Step 1 — Check each group: DGJ: D(4)→G(7) gap=3✓; G(7)→J(10) gap=3✓. Valid.

EHK: E(5)→H(8) gap=3✓; H(8)→K(11) gap=3✓. Valid.

GJN: G(7)→J(10) gap=3✓; J(10)→N(14) gap=4×. **Invalid** (should be M, not N).

FIL: F(6)→I(9) gap=3✓; I(9)→L(12) gap=3✓. Valid.

Step 2 — Odd one out: GJN – the gap from J to N is 4, not 3. The third letter should be M ($10+3=13=M$).

Why other options are wrong:

- (A) DGJ: Consistent gap of 3 throughout.
- (B) EHK: Consistent gap of 3 throughout.
- (D) FIL: Consistent gap of 3 throughout.

Answer: (C) [Go Back to Q 19](#)

Solution**Q20 — Classification: Not a Perfect Square**

Concept — Perfect Squares: A perfect square is the square of an integer. Check each number.

Step 1 — Test each number: $121 = 11^2$ ✓ $144 = 12^2$ ✓ $169 = 13^2$ ✓

$192: 13^2 = 169$ and $14^2 = 196$. Since $169 < 192 < 196$, 192 is **not** a perfect square.

Step 2 — Odd one out: 192 is not a perfect square.

Why other options are wrong:

- (A) 121: $= 11^2$ – perfect square.
- (B) 144: $= 12^2$ – perfect square.
- (C) 169: $= 13^2$ – perfect square.

Answer: (D) [Go Back to Q 20](#)



Solution**Q21 — Ranking/Ordering: Score Ordering**

Concept — Linear Ordering from Comparative Clues: Chain all the inequalities to build a complete ranking.

Step 1 — Chain the clues: $R > P > Q > S > T$.

Step 2 — Full ranking (highest to lowest):

1st: R 2nd: P 3rd: Q 4th: S 5th: T

The 2nd highest scorer is P.

Why other options are wrong:

- (A) R: R is the highest scorer (1st), not 2nd.
- (C) Q: Q is 3rd.
- (D) T: T is the lowest scorer (5th).

Answer: (B) [Go Back to Q 21](#)

Solution**Q22 — Ranking/Ordering: Row Total**

Concept — Position from Both Ends: If a person is m th from the front and n th from the back, total in the row = $m + n - 1$.

Step 1 — Apply the formula: Total = $13 + 8 - 1 = 20$.

Step 2 — Intuitive check: 12 people are in front of Leena (positions 1–12), Leena herself is at position 13, and 7 people are behind her (positions 14–20). Total = $12 + 1 + 7 = 20$. ✓

Why other options are wrong:

- (A) 18: Subtracts 3 instead of 1 – incorrect formula application.
- (B) 19: Off by 1 – perhaps uses $13 + 8 - 2 = 19$.
- (D) 21: Adds $13 + 8 = 21$ without subtracting 1 for Leena counted twice.

Answer: (C) [Go Back to Q 22](#)



Solution**Q23 — Ranking/Ordering: Class Total**

Concept — Rank from Top and Bottom: Total students = (rank from top) + (rank from bottom) – 1.

Step 1 — Apply the formula: Total = $10 + 15 - 1 = 24$.

Step 2 — Verify: 9 students rank above Sanjay, 14 rank below, and Sanjay himself: $9 + 1 + 14 = 24$. ✓

Why other options are wrong:

- (B) 25: Adds without subtracting 1 for Sanjay counted twice.
- (C) 26: Overestimates by 2.
- (D) 27: Overestimates by 3.

Answer: (A) [Go Back to Q 23](#)

Solution**Q24 — Ranking/Ordering: Row Position (5 People)**

Concept — Sequential Position Deduction: Assign each person to a seat using the positional clues one by one.

Step 1 — Fix positions from clues: Chandan is at position 1 (extreme left). Esha is at position 5 (extreme right). Dinesh is immediately left of Esha $\Rightarrow$ position 4. Amar is not at either end $\Rightarrow$ positions 2, 3, or 4. Dinesh is at 4, so Amar is at 2 or 3. Bimal is immediately right of Amar. If Amar at 2, Bimal at 3. If Amar at 3, Bimal at 4 – but 4 is Dinesh. So Amar = 2, Bimal = 3.

Step 2 — Final arrangement:

Chandan(1) – Amar(2) – **Bimal(3)** – Dinesh(4) – Esha(5)

3rd position from left = **Bimal**.

Why other options are wrong:

- (A) Amar: Amar is at position 2.
- (B) Dinesh: Dinesh is at position 4.
- (C) Chandan: Chandan is at position 1 (extreme left).

Answer: (D) [Go Back to Q 24](#)



Solution**Q25 — Net Displacement: 10–24–26 Right Triangle**

Concept — Pythagorean Theorem: When a person walks East and then North, the two displacements are perpendicular, forming a right triangle. The straight-line distance is the hypotenuse.

Step 1 — Identify the triangle: Horizontal leg (East) = 10 km; Vertical leg (North) = 24 km.

Step 2 — Calculate the hypotenuse:

$$d = \sqrt{10^2 + 24^2} = \sqrt{100 + 576} = \sqrt{676} = 26 \text{ km}$$

This is the Pythagorean triple 10–24–26 (a scaled version of 5–12–13).

Why other options are wrong:

- (A) 24 km: Only the North component – ignores the East leg.
- (C) 28 km: $28^2 = 784 \neq 676$; not the correct hypotenuse.
- (D) 30 km: $30^2 = 900 \neq 676$; overestimates the distance.

Answer: (B) [Go Back to Q 25](#)

Solution**Q26 — Blood Relations: Mother's Brother's Son**

Concept — Maternal Side Relationship: The brother of one's mother is the maternal uncle. The son of one's maternal uncle is one's cousin (specifically, first cousin).

Step 1 — Decode step by step: "The brother of my mother" = the speaker's maternal uncle.

"Ravi is the son of [maternal uncle]" $\Rightarrow$ Ravi is the speaker's **cousin**.

Why other options are wrong:

- (A) Brother: Brother would be the son of the speaker's own father or mother – not of the mother's brother.
- (B) Nephew: A nephew is the son of one's own sibling.
- (D) Uncle: The mother's brother is the uncle; Ravi is the uncle's son, one generation below.

Answer: (C) [Go Back to Q 26](#)



Solution**Q27 — Blood Relations: Three-Generation (Granddaughter)**

Concept — Multi-Generation Descent: Track the family tree generation by generation.

Step 1 — Build the tree: A is the father of B and D (B and D are siblings; D is the brother of B). C is the wife of A $\Rightarrow$ C is the mother of B and D. E is the daughter of D $\Rightarrow$ E is C's grandchild (through D).

Step 2 — E's relation to C: C is E's grandmother. Equivalently, E is C's **granddaughter**.

Why other options are wrong:

- (A) Daughter: E is the daughter of D, who is C's son – E is therefore one more generation below C, making E C's granddaughter, not daughter.
- (C) Niece: Niece would be the daughter of C's sibling; E is the daughter of C's child.
- (D) Great-granddaughter: That would require one more generation between D and E.

Answer: (B) [Go Back to Q 27](#)

Solution**Q28 — Blood Relations: X's Relation to Q**

Concept — In-law Sibling Relationship: When a person marries someone, that person's siblings become their brothers-in-law or sisters-in-law.

Step 1 — Trace the relationships: W is the wife of X. Q is the sister of W.

Step 2 — Determine X's relation to Q: X is married to W. W's sister is Q. Therefore X is Q's **brother-in-law** (the husband of Q's sister).

Why other options are wrong:

- (A) Uncle: Uncle is the brother of one's parent; X has no parental link to Q.
- (B) Cousin: Cousin implies a shared grandparent; no such relation exists here.
- (C) Father-in-law: P (X's mother) is a female, so P cannot be a father; X is not Q's parent-in-law.

Answer: (D) [Go Back to Q 28](#)



Solution**Q29 — Blood Relations: Coded Relations (Aunt)**

Concept — Symbolic Family Relation Parsing: Decode the expression step by step using the given symbol definitions.

Step 1 — Decode $P \diamond Q \bullet R \blacktriangle S$: $P \diamond Q$: P is the sister of Q (P and Q are siblings; Q is male since he is a husband).

$Q \bullet R$: Q is the husband of R (Q male, R female).

$R \blacktriangle S$: R is the parent of S.

Step 2 — Determine P's relation to S: Q is also a parent of S (Q is married to R, the parent of S, so Q is the other parent). P is Q's sister. Therefore P is the sister of S's father (Q), making P S's **aunt** (paternal aunt).

Why other options are wrong:

- (B) Mother: R is S's mother; P is Q's sister, not R.
- (C) Sister: P is in the same generation as Q, one generation above S.
- (D) Cousin: Cousin implies a shared grandparent; P is in the direct aunt relationship.

Answer: (A) [Go Back to Q 29](#)

Solution**Q30 — Directions: 15–20–25 Right Triangle**

Concept — Pythagorean Theorem: The man walks North (vertical leg) then East (horizontal leg). These are perpendicular, so the straight-line distance is the hypotenuse.

Step 1 — Identify the right triangle: Vertical leg (North) = 15 km; Horizontal leg (East) = 20 km.

Step 2 — Calculate the hypotenuse:

$$d = \sqrt{15^2 + 20^2} = \sqrt{225 + 400} = \sqrt{625} = 25 \text{ km}$$

This is the Pythagorean triple 15–20–25 (a scaled version of 3–4–5).

Why other options are wrong:

- (A) 20 km: Only the East leg – ignores the North component.
- (B) 22 km: $22^2 = 484 \neq 625$; incorrect hypotenuse.
- (C) 24 km: $24^2 = 576 \neq 625$; underestimates the distance.

Answer: (D) [Go Back to Q 30](#)



Solution**Q31 — Directions: Compass Turns (Final Direction South)**

Concept — Sequential Directional Turns: Track the facing direction after each turn.

Step 1 — Initial direction: Renu faces **East**.

Step 2 — Turn 1: 90° to the left from East: Left from East $\Rightarrow$ faces **North**.

Step 3 — Turn 2: 90° to the right from North: Right from North $\Rightarrow$ faces **East**.

Step 4 — Turn 3: 90° to the right from East: Right from East $\Rightarrow$ faces **South**.

Final direction: **South**.

Why other options are wrong:

- (B) North: Only the direction after Turn 1.
- (C) East: The direction after Turns 1 and 2 cancel each other – but Turn 3 changes it to South.
- (D) West: Would require a left turn (not right) from East at the final step.

Answer: (A) [Go Back to Q 31](#)

Solution**Q32 — Directions: Return Direction**

Concept — Net Displacement and Return Path: Trace Rani's path and determine the relative position of C to O.

Step 1 — Trace the path: $O \xrightarrow{4 \text{ km N}} A \xrightarrow{3 \text{ km E}} B \xrightarrow{4 \text{ km S}} C$.

Step 2 — Net position of C relative to O: 4 km North and 4 km South cancel exactly. The net displacement is 3 km East. So C is directly *East* of O.

Step 3 — Return direction: To go from C back to O (which is to the *West* of C), Rani must walk **West**.

Why other options are wrong:

- (A) North: O is directly West of C, not North.
- (C) East: East moves further away from O.
- (D) South: O and C are at the same latitude; South does not return to O.

Answer: (B) [Go Back to Q 32](#)



Solution**Q33 — Syllogism: All Rivers / Ganges (Both I and II)**

Concept — Universal Syllogism and Existential Import: If all A are B and X is an A, then X is a B. Furthermore, since at least one A (X) exists and all A are B, some B have the property of receiving from A.

Step 1 — Check Conclusion I: All rivers flow into the sea. The Ganges is a river. Therefore the Ganges flows into the sea. **Conclusion I follows.**

Step 2 — Check Conclusion II: All rivers flow into the sea. Since the Ganges (and other rivers) flow into the sea, at least one sea receives river water. **Conclusion II follows.**

Both I and II follow.

Why other options are wrong:

- (A) Only I: II is also a valid conclusion by existential import.
- (B) Only II: I follows directly by the basic syllogism rule.
- (D) Neither: Both conclusions are logically valid.

Answer: (C) [Go Back to Q 33](#)

Solution**Q34 — Syllogism: Some–All Partial (Only I)**

Concept — Partial Set Overlap with Universal Inclusion: “Some A are B” means a non-empty overlap between A and B. “All B are C” means $B \subseteq C$.

Step 1 — Check Conclusion I: Some flowers are red (overlap of flowers and red). All red things are beautiful ($\text{red} \subseteq \text{beautiful}$). The red flowers are therefore also beautiful. So **some flowers are beautiful**. Conclusion I **follows**.

Step 2 — Check Conclusion II: “All beautiful things are flowers” reverses the subset direction of “all red things are beautiful” and extends it improperly. Beautiful things can include non-red, non-flower objects. Conclusion II does **not** follow.

Only I follows.

Why other options are wrong:

- (B) Only II: II is an unwarranted converse – not supported by the premises.
- (C) Both: II is invalid.
- (D) Neither: I is validly derived.

Answer: (A) [Go Back to Q 34](#)



Solution**Q35 — Syllogism: No Squares Are Circles / Some Circles Are Triangles (Only II)**

Concept — Negative Universal and Partial Overlap: “No squares are circles” means squares and circles are disjoint sets. “Some circles are triangles” means there is a non-empty intersection of circles and triangles.

Step 1 — Check Conclusion I: “No squares are triangles” – we know squares and circles are disjoint, and some circles are triangles. But the triangles that are not circles could share membership with squares. The premise gives no information about squares and triangles directly. Conclusion I does **not** necessarily follow.

Step 2 — Check Conclusion II: Some circles are triangles. No squares are circles. Therefore the circles that are also triangles are definitely not squares. So **some triangles are not squares**. Conclusion II **follows**.

Only II follows.

Why other options are wrong:

- (A) Only I: I cannot be definitively concluded.
- (B) Both: I is not proven by the given premises.
- (C) Neither: II is validly derived as shown.

Answer: (D) [Go Back to Q 35](#)

Solution**Q36 — Syllogism: All Men Mortal / Socrates (Only I)**

Concept — Classic Deductive Syllogism: This is the famous Aristotelian syllogism. If all members of a category have a property, and X belongs to that category, then X has that property.

Step 1 — Check Conclusion I: All men are mortal. Socrates is a man. Therefore **Socrates is mortal**. Conclusion I **follows** directly.

Step 2 — Check Conclusion II: “All mortals are men” is the *converse* of “all men are mortal”. The converse is not logically implied – there could be mortal beings that are not men (e.g., animals). Conclusion II does **not** follow.

Only I follows.

Why other options are wrong:

- (A) Both: II is invalid – it is an unwarranted converse.
- (C) Neither: I follows directly and classically from the premises.



- (D) Only II: II is not logically supported.

Answer: (B) [Go Back to Q 36](#)

Solution

Q37 — Syllogism: Some Vegetables Green / Some Green Edible (Neither)

Concept — Two Particular Premises Yield No Definite Conclusion: When both premises are particular (“some”), we cannot draw a definite conclusion about the relationship between the extreme terms.

Step 1 — Analyse: Some vegetables are green: overlap of vegetables and green is non-empty (call it set $V \cap G$).

Some green things are edible: overlap of green and edible is non-empty (call it set $G \cap E$).

The sets $V \cap G$ and $G \cap E$ need not overlap – the green vegetables and the green edible things may be entirely different subsets of green.

Step 2 — Both conclusions do not follow: Conclusion I (“some vegetables are edible”) and Conclusion II (“some edible things are vegetables”) both require a direct link between vegetables and edible things that is not established. **Neither follows.**

Why other options are wrong:

- (A) Both: Neither conclusion is logically guaranteed by two particular premises.
- (B) Only I: I cannot be concluded for the reason given above.
- (D) Only II: II also cannot be concluded.

Answer: (C) [Go Back to Q 37](#)

Solution

Q38 — Statement-based: Both Courses of Action Follow

Concept — Practical Courses of Action: A valid course of action must directly and logically address the problem or goal stated.

Step 1 — Evaluate Course I: If daily reading improves vocabulary and analytical skills, incorporating it into the school curriculum is a direct and practical way to benefit students. Course I **follows**.

Step 2 — Evaluate Course II: Establishing libraries provides access to books in underserved areas, enabling daily reading and thus supporting the improvement mentioned



in the statement. Course II **follows**.

Both I and II follow.

Why other options are wrong:

- (A) Only I: II is equally logical and practical.
- (B) Only II: I directly addresses the school environment where reading habits are built.
- (C) Neither: Both courses are clearly justified by the statement.

Answer: (D) [Go Back to Q 38](#)

Solution

Q39 — Statement-Conclusion: Petrol Price Rise (Only I)

Concept — Direct vs. Speculative Conclusions: A valid conclusion must follow necessarily and directly from the statement, without requiring additional speculation.

Step 1 — Check Conclusion I: Petrol is a primary fuel for vehicles. A 20% increase in petrol price directly raises the operating cost of transportation (vehicles, logistics, etc.). Conclusion I (“Cost of transportation will rise”) **follows** directly.

Step 2 — Check Conclusion II: While some people may switch to bicycles due to rising petrol costs, this is speculative and not a certain consequence. Many people may have no alternative to motor vehicles, or may not own bicycles. Conclusion II does **not** necessarily follow.

Only I follows.

Why other options are wrong:

- (B) Only II: II is uncertain and speculative.
- (C) Both: II is not a necessary logical conclusion.
- (D) Neither: I clearly and directly follows from the petrol price rise.

Answer: (A) [Go Back to Q 39](#)

Solution

Q40 — Statement-Conclusion: Science Olympiad (Neither)

Concept — Scope and Direction of Logical Inference: The statement establishes that



all olympiad participants scored above average. This tells us about participants only; no inference about non-participants or the test difficulty is justified.

Step 1 — Check Conclusion I: “All above-average students appeared in the olympiad” is the converse of the statement. The statement says participants scored above average, but above-average students may exist who did not appear. Conclusion I does **not** follow.

Step 2 — Check Conclusion II: “The olympiad was difficult” is an external inference not supported by the data in the statement. High performance could result from many factors. Conclusion II does **not** follow.

Neither follows.

Why other options are wrong:

- (A) Only I: I is an invalid converse of the statement.
- (B) Only II: II requires assumptions not present in the statement.
- (D) Both: Neither conclusion is logically derivable.

Answer: (C) [Go Back to Q 40](#)

Solution

Q41 — Statement-Assumption: Library Late-Fine Policy (Both Implicit)

Concept — Implicit Assumptions: An implicit assumption is a hidden premise that the statement presupposes to be true for it to be meaningful or actionable.

Step 1 — Check Assumption I: The announcement about returning overdue books presupposes that *some* books have indeed been kept beyond 3 weeks. Otherwise, the policy announcement would be unnecessary. Assumption I is **implicit**.

Step 2 — Check Assumption II: The policy imposes fines as a consequence. This presupposes that fines will motivate borrowers to return books on time – i.e., that fines serve as effective deterrents. Assumption II is **implicit**.

Both I and II are implicit.

Why other options are wrong:

- (A) Only II: I is equally necessary for the policy to be relevant.
- (C) Only I: II underlies the rationale for imposing a fine rather than any other consequence.
- (D) Neither: Both assumptions are clearly embedded in the statement.

Answer: (B) [Go Back to Q 41](#)



Solution**Q42 — Statement-Conclusion: Social Media and Academics (Only II)**

Concept — Proportionate and Logical Response: A conclusion must be proportionate to the problem and directly derivable, without being extreme or unwarranted.

Step 1 — Check Conclusion I: Banning social media for all under-18 users is an extreme step. The statement identifies excessive use as a concern, not social media itself. A complete ban is not logically implied by the statement. Conclusion I does **not** follow.

Step 2 — Check Conclusion II: If excessive social media use harms academic performance, a practical and proportionate response is for parents to monitor and limit their children's usage. This is a direct, reasonable implication. Conclusion II **follows**.

Only II follows.

Why other options are wrong:

- (A) Both: I is extreme and not a necessary logical consequence.
- (B) Only I: I is disproportionate and unjustified by the statement alone.
- (C) Neither: II clearly and logically follows from the statement.

Answer: (D) [Go Back to Q 42](#)

Solution**Q43 — Seating Arrangement: 3rd Position from Left**

Concept — Linear Seating Deduction: Work out the arrangement from the given clues.

Final arrangement (left to right):

Arjun(1) – Gopal(2) – Chitra(3) – Bala(4) – Farida(5) – Deepa(6) – Ekta(7)

Step 1 — Identify 3rd position: Seat 3 = **Chitra**.

Derivation of arrangement: Arjun at 1 (extreme left); Gopal immediately right of Arjun $\Rightarrow$ seat 2; Bala at seat 4; Farida immediately right of Bala $\Rightarrow$ seat 5; Ekta at seat 7 (extreme right); Deepa immediately left of Ekta $\Rightarrow$ seat 6; Chitra is the only person left, placed at seat 3.

Why other options are wrong:

- (B) Gopal: Gopal is at seat 2.
- (C) Farida: Farida is at seat 5.
- (D) Bala: Bala is at seat 4.



Answer: (A) [Go Back to Q 43](#)

Solution

Q44 — Seating Arrangement: Immediately Left of Farida

Concept — Adjacent Position (Left Neighbour): Arrangement: Arjun(1) – Gopal(2) – Chitra(3) – Bala(4) – Farida(5) – Deepa(6) – Ekta(7).

Step 1 — Farida is at seat 5. Seat immediately to the left of seat 5 is seat 4: Seat 4 = Bala.

Why other options are wrong:

- (A) Chitra: Chitra is at seat 3 – two seats to the left of Farida.
- (B) Deepa: Deepa is at seat 6 – to the *right* of Farida.
- (C) Ekta: Ekta is at seat 7 – at the extreme right, two seats away.

Answer: (D) [Go Back to Q 44](#)

Solution

Q45 — Seating Arrangement: Between Gopal and Ekta

Concept — Counting People Between Two Seats: Arrangement: Arjun(1) – Gopal(2) – Chitra(3) – Bala(4) – Farida(5) – Deepa(6) – Ekta(7).

Step 1 — Identify seats strictly between Gopal (seat 2) and Ekta (seat 7): Seats 3, 4, 5, 6 $\Rightarrow$ Chitra, Bala, Farida, Deepa = **4 people**.

Why other options are wrong:

- (A) 3: Undercounts – misses one of the four intermediate seats.
- (B) 5: Overcounts – perhaps includes Gopal or Ekta themselves.
- (D) 2: Significantly undercounts the 4 intermediate seats.

Answer: (C) [Go Back to Q 45](#)

Solution

Q46 — Seating Arrangement: After Gopal and Bala Swap

Concept — Positional Swap: Gopal (seat 2) and Bala (seat 4) exchange seats.



Step 1 — New arrangement: Arjun(1) – **Bala**(2) – Chitra(3) – **Gopal**(4) – Farida(5) – Deepa(6) – Ekta(7).

Step 2 — 2nd position from left: Seat 2 is now occupied by **Bala**.

Why other options are wrong:

- (A) Arjun: Arjun remains at seat 1.
- (C) Chitra: Chitra remains at seat 3.
- (D) Gopal: After the swap, Gopal is at seat 4.

Answer: (B) [Go Back to Q 46](#)

Solution

Q47 — Seating Arrangement: Farida's Position from the Right End

Concept — Converting Left Position to Right Position: If a person is at seat k from the left in a row of n people, their position from the right is $n - k + 1$.

Step 1 — Farida is at seat 5 from the left; total seats = 7: Position from right $= 7 - 5 + 1 = 3$ rd.

Verify: From the right: Ekta(1), Deepa(2), **Farida(3)**, Bala(4), Chitra(5), Gopal(6), Arjun(7). ✓

Why other options are wrong:

- (A) 1st: The 1st from the right is Ekta (extreme right end).
- (B) 2nd: The 2nd from the right is Deepa.
- (C) 4th: The 4th from the right is Bala.

Answer: (D) [Go Back to Q 47](#)

Solution

Q48 — Seating Arrangement: Immediate Neighbours of Chitra

Concept — Adjacent Seats (Both Sides): Arrangement: Arjun(1) – Gopal(2) – Chitra(3) – Bala(4) – Farida(5) – Deepa(6) – Ekta(7).

Step 1 — Chitra is at seat 3: Left neighbour (seat 2) = **Gopal**. Right neighbour (seat 4) = **Bala**.

Chitra's immediate neighbours are **Gopal and Bala**.



Why other options are wrong:

- (B) Arjun and Bala: Arjun is at seat 1 – not immediately adjacent to Chitra at seat 3.
- (C) Gopal and Chitra: Chitra cannot be her own neighbour.
- (D) Bala and Farida: Farida is at seat 5 – two seats away from Chitra.

Answer: (A) [Go Back to Q 48](#)

Solution

Q49 — Cause-Effect: Common Underlying Cause

Concept — Shared Root Cause: When two statements are both consequences of a single underlying problem, they are effects of a common cause – neither is the direct cause of the other.

Step 1 — Analyse Statement I: Students performing poorly in examinations – this suggests a problem with the quality of education or preparation.

Step 2 — Analyse Statement II: Parents hiring private tutors – this is a *reaction* to a perceived gap in schooling quality or student performance.

Step 3 — Determine relationship: Both statements are *responses* to a common root cause: declining quality of school instruction (or similar systemic educational issue). Statement II (hiring tutors) is not the cause of Statement I (poor performance) – rather, poor school quality causes both poor results AND the tutor-hiring trend. **Both are effects of a common cause.**

Why other options are wrong:

- (A) I causes II: While plausible, poor performance alone is not the complete cause; the systemic school issue drives both.
- (B) II causes I: Hiring tutors is a *response* to poor performance, not a cause of it.
- (D) Both are independent: They are clearly connected through a shared root cause.

Answer: (C) [Go Back to Q 49](#)

Solution

Q50 — Assertion-Reason: Exercise During Illness

Concept — Assertion-Reason Analysis: First check if both A and R are individually true. If yes, check whether R logically explains A.



Step 1 — Is Assertion (A) true? Heavy physical exercise should be avoided during illness – this is sound medical advice (exercise during illness can worsen the condition, delay recovery, and place extra strain on the immune system). **True.**

Step 2 — Is Reason (R) true? Physical exercise improves stamina – this is a well-established physiological fact. **True.**

Step 3 — Does R correctly explain A? The reason we avoid exercise during illness is *not* because exercise improves stamina – in fact, that is precisely why exercise is normally beneficial. We avoid it during illness because the body needs its energy for recovery, and exertion can be harmful or delay healing. The fact that exercise improves stamina is *irrelevant* to the assertion about avoiding it during illness. R does **not** correctly explain A.

Both A and R are true, but R is NOT the correct reason for A.

Why other options are wrong:

- (A) R is the correct reason: R (exercise improves stamina) does not logically justify avoiding exercise during illness.
- (C) R is false: Exercise does genuinely improve stamina – R is factually true.
- (D) A is false: Medical advice consistently recommends rest and avoiding strenuous activity during illness – A is true.

Answer: (B) [Go Back to Q 50](#)



Answer Key

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

