

Bihar B.Ed CET Logical & Analytical Reasoning

Sample Paper – 1

Duration: 25 Minutes

Maximum Marks: 25

Instructions

- This paper contains **25** Multiple Choice Questions (Single Correct Answer), modelled on the Logical & Analytical Reasoning section of **Bihar B.Ed CET**.
- Each correct answer carries **+1 mark**. There is **no negative marking** for incorrect or unattempted answers.
- Only **one** option is correct. Choose carefully.
- Use of mobile phones, calculators, or electronic gadgets is strictly prohibited.
- Rough work may be done in the margin of the question paper.

Q1. Find the missing term in the series: 3, 7, 13, 21, 31, _____

- (A) 41
- (B) 43
- (C) 45
- (D) 39

Q2. Find the next group of letters in the series: BEH, KNQ, TWZ, _____

- (A) ADF
- (B) DGJ
- (C) CFI
- (D) CEH

Q3. Choose the correct analogy:

Stethoscope : Doctor :: Scalpel : _____



- (A) Surgeon
- (B) Nurse
- (C) Pharmacist
- (D) Dentist

Q4. Choose the correct analogy:

5 : 125 :: 4 : _____

- (A) 16
- (B) 32
- (C) 48
- (D) 64

Q5. Which of the following is the **odd one out**?

- (A) Wheat
- (B) Mustard
- (C) Rice
- (D) Maize

Q6. In a certain code language, MANGO is written as OCPIQ. Using the same code, how will GRAPE be written?

- (A) HSCPG
- (B) ITCQG
- (C) ITCRG
- (D) HSCRG

Q7. In a certain code, each word is represented by the **sum of positional values** of its letters (A = 1, B = 2, ..., Z = 26).

If CAT = 24 and DOG = 26, then RAT = ?

- (A) 39

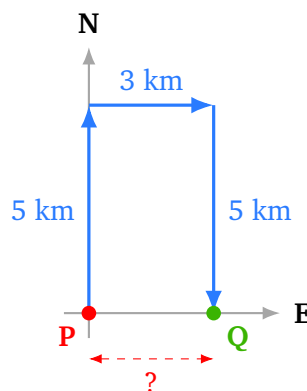


- (B) 37
- (C) 41
- (D) 35

Q8. Ravi's father's sister's son is Mohan. How is Mohan related to Ravi?

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

Q9. A person starts from point P, walks **5 km towards the North**, then turns and walks **3 km towards the East**, and finally turns and walks **5 km towards the South**, reaching point Q. What is the straight-line distance from P to Q?



- (A) 3 km
- (B) 5 km
- (C) 8 km
- (D) 13 km

Q10. In a row of **40 students**, Sita is **15th from the left end**. What is her position from the **right end**?

- (A) 25th



- (B) 26th
- (C) 27th
- (D) 24th

Q11. Statements:

All cats are animals.
Some animals are wild.

Conclusions:

- I. Some cats are wild.
- II. No cat is wild.

Which of the following is correct?

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

Q12. Statements:

No table is a chair.
No chair is a bench.

Conclusions:

- I. No table is a bench.
- II. Some benches are tables.

Which of the following is correct?

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

Q13. Statement: “Children who play outdoor games stay healthy.”



Conclusions:

- I. Outdoor games promote health in children.
- II. Children who do not play outdoor games are never healthy.

Which conclusion(s) follow?

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

Q14. Statement: “Drink Refresho — the best energy drink.”

Assumptions:

- I. People need energy drinks.
- II. Refresho is superior to all other energy drinks.

Which assumption(s) is/are implicit?

- (A) Only Assumption I is implicit
- (B) Only Assumption II is implicit
- (C) Both Assumptions I and II are implicit
- (D) Neither Assumption I nor Assumption II is implicit

Q15. Statement: “Should schools ban the use of smartphones?”

Arguments:

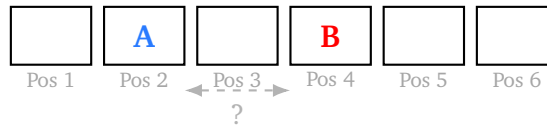
- I. Yes, smartphones distract students from their studies.
- II. No, smartphones are useful tools for learning and research.

Which argument(s) is/are strong?

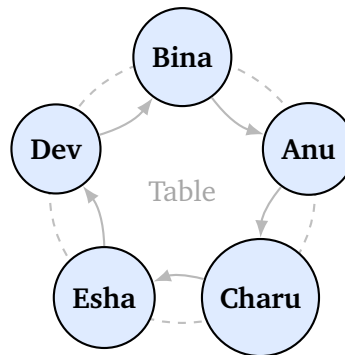
- (A) Only Argument I is strong
- (B) Only Argument II is strong
- (C) Both Arguments I and II are strong
- (D) Neither Argument I nor Argument II is strong



- Q16.** In a row of 6 students, A is at the **2nd position from the left** and B is at the **3rd position from the right**. How many students are sitting **between A and B**?



- (A) 0
(B) 2
(C) 3
(D) 1
- Q17.** Five friends Anu, Bina, Charu, Dev, and Esha sit around a circular table, all **facing the centre**. Anu sits to the **immediate right** of Bina. Charu sits to the **immediate right** of Anu. Dev sits to the **immediate right** of Esha. Who sits to the **immediate left** of Dev?



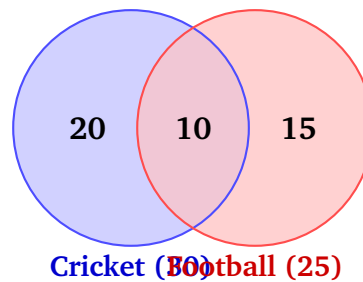
- (A) Esha
(B) Bina
(C) Charu
(D) Anu
- Q18.** If $+$ means $\times$, $\times$ means $-$, $-$ means $\div$, and $\div$ means $+$, find the value of: $6 + 3 - 2 \times 4 \div 1$

- (A) 4



- (B) 6
- (C) 8
- (D) 10

Q19. In a class, **30 students** play Cricket, **25 students** play Football, and **10 students** play both Cricket and Football. How many students play **at least one** of the two sports?



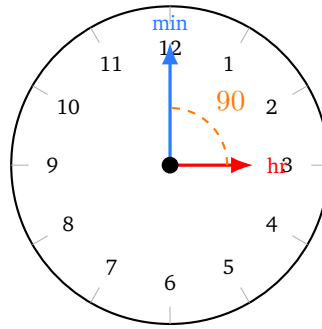
- (A) 55
- (B) 40
- (C) 45
- (D) 35

Q20. If **March 1, 2023** falls on a **Wednesday**, what day of the week is **March 1, 2024**?

- (A) Wednesday
- (B) Thursday
- (C) Saturday
- (D) Friday

Q21. What is the angle (in degrees) between the **minute hand** and the **hour hand** of a clock at **3:00**?





- (A) 90
- (B) 180
- (C) 120
- (D) 60

Q22. Find the next term in the series: A2, C4, E6, G8, _____

- (A) H9
- (B) J10
- (C) I10
- (D) H10

Q23. Which of the following is **NOT** a perfect square?

- (A) 16
- (B) 35
- (C) 25
- (D) 49

Q24. Find the missing number (?) in the following table:

3	6	9
4	8	12
5	10	?

- (A) 14



- (B) 13
- (C) 16
- (D) 15

Q25. On a standard die, opposite faces always sum to 7 (i.e., 1 is opposite 6, 2 is opposite 5, 3 is opposite 4). If the face showing **3** is facing you and the face showing **1** is on **top**, which number is at the **bottom**?

- (A) 6
- (B) 5
- (C) 4
- (D) 2



Detailed Solutions

Q1.

Solution

Concept — Number Series (Increasing Differences): In this series, the difference between consecutive terms increases by a fixed amount at each step.

Step 1 — Find the successive differences:

$$3, \quad 7, \quad 13, \quad 21, \quad 31, \quad ?$$

$$\underbrace{\quad}_{+4}, \quad \underbrace{\quad}_{+6}, \quad \underbrace{\quad}_{+8}, \quad \underbrace{\quad}_{+10}, \quad \underbrace{\quad}_{+?}$$

The differences are 4, 6, 8, 10, ... each increasing by 2.

Step 2 — Compute the next difference and term: Next difference = $10 + 2 = 12$.
Missing term = $31 + 12 = 43$.

Why other options are wrong:

- Option A (41): Requires a difference of 10, repeating the previous step — pattern breaks.
- Option C (45): Requires a difference of 14, skipping 12 — inconsistent.
- Option D (39): Requires a difference of 8, which is decreasing — wrong direction.

Final Answer: The missing term is 43 $\Rightarrow$ B

Answer: (B) [Go Back to Q1](#)

Q2.

Solution

Concept — Letter Series (Group Pattern): Each group of three letters has uniform internal spacing (+3), and the starting letter of each successive group advances by +9.

Step 1 — Analyse each group:

- BEH: B(2), E(5), H(8) — spacing +3 within the group.
- KNQ: K(11), N(14), Q(17) — spacing +3 within the group.
- TWZ: T(20), W(23), Z(26) — spacing +3 within the group.

Step 2 — Find the next group's starting letter: Group starts: 2, 11, 20, ... — the



gap is +9 each time.

Next start: $20 + 9 = 29$. Since 29 exceeds 26, cycle: $29 - 26 = 3 \Rightarrow \text{C}$.

Group: C(3), F(6), I(9) $\Rightarrow$ **CFI**.

Why other options are wrong:

- Option A (ADF): Starts at A(1); does not follow the +9 pattern.
- Option B (DGJ): Starts at D(4); spacing is +3 but the start is incorrect.
- Option D (CEH): Internal spacings are +2 then +3 — not uniform.

Final Answer: The next group is CFI $\Rightarrow$ C

Answer: (C) [Go Back to Q2](#)

Q3.

Solution

Concept — Word Analogy (Instrument–Specialist): A specialised instrument is paired with the medical professional who primarily uses it.

Step 1 — Establish the given pair: A *stethoscope* is the primary diagnostic tool of a *doctor* (general physician).

Step 2 — Apply the same logic: A *scalpel* (a precision cutting blade) is the primary operative instrument of a *surgeon*.

Why other options are wrong:

- Option B (Nurse): Nurses primarily use syringes, stethoscopes, and monitoring equipment, not scalpels.
- Option C (Pharmacist): Pharmacists dispense and prepare medicines; scalpels are not their tool.
- Option D (Dentist): Dentists use dental drills, forceps, and mirrors — not surgical scalpels.

Final Answer: Scalpel is to Surgeon $\Rightarrow$ A

Answer: (A) [Go Back to Q3](#)



Q4.

Solution

Concept — Number Analogy (Cube Relationship): The second number in each pair is the *cube* of the first number.

Step 1 — Verify the given pair: $5^3 = 5 \times 5 \times 5 = 125$ ✓

Step 2 — Apply to the unknown: $4^3 = 4 \times 4 \times 4 = 64$

Why other options are wrong:

- Option A (16): $4^2 = 16$ — the *square* of 4, not the cube.
- Option B (32): $4 \times 8 = 32$ — no standard power relationship.
- Option C (48): $4 \times 12 = 48$ — no standard power relationship.

Final Answer: $4^3 = 64 \Rightarrow$ D

Answer: (D) [Go Back to Q4](#)

Q5.

Solution

Concept — Odd One Out (Crop Classification): Three items belong to one agricultural category; the fourth belongs to a different category.

Step 1 — Classify each option:

- Wheat: a *cereal crop* (food grain).
- **Mustard:** an *oilseed crop* grown primarily for oil extraction.
- Rice: a *cereal crop* (food grain).
- Maize: a *cereal crop* (food grain).

Step 2 — Identify the odd one: Wheat, Rice, and Maize are all cereal/food-grain crops. Mustard is an *oilseed crop* — it does not belong to the same category.

Why other options are wrong:

- Option A (Wheat): A food grain — belongs to the dominant category.
- Option C (Rice): A food grain — belongs to the dominant category.
- Option D (Maize): A food grain — belongs to the dominant category.

Final Answer: Mustard is the odd one out $\Rightarrow$ B

Answer: (B) [Go Back to Q5](#)



Q6.

Solution

Concept — Coding-Decoding (Letter Shift +2): Each letter of the word is replaced by the letter that appears 2 positions later in the English alphabet.

Step 1 — Verify with MANGO:

$$M(+2) \rightarrow O, \quad A(+2) \rightarrow C, \quad N(+2) \rightarrow P, \quad G(+2) \rightarrow I, \quad O(+2) \rightarrow Q$$

$$MANGO \rightarrow OCPIQ \checkmark$$

Step 2 — Encode GRAPE:

$$G(+2) \rightarrow I, \quad R(+2) \rightarrow T, \quad A(+2) \rightarrow C, \quad P(+2) \rightarrow R, \quad E(+2) \rightarrow G$$

$$GRAPE \rightarrow ITCRG$$

Why other options are wrong:

- Option A (HSCPG): H is +1 from G, S is +1 from R — shift is +1, not +2.
- Option B (ITCQG): Q would be the code for O (+2), not for P. $P+2 = R$, not Q.
- Option D (HSCRG): H is +1 from G — the shift is inconsistent.

Final Answer: GRAPE $\rightarrow$ ITCRG $\Rightarrow$ C

Answer: (C) [Go Back to Q6](#)

Q7.

Solution

Concept — Coding-Decoding (Sum of Letter Positions): The code value of a word is the sum of the alphabetical positions of its letters (A= 1, B= 2, ..., Z= 26).

Step 1 — Verify with given codes:

- CAT: $C(3) + A(1) + T(20) = 24 \checkmark$
- DOG: $D(4) + O(15) + G(7) = 26 \checkmark$

Step 2 — Calculate RAT:

$$R(18) + A(1) + T(20) = 39$$

Why other options are wrong:



- Option B (37): Would require $18 + 1 + 18 = 37$ — T's position is 20, not 18.
- Option C (41): Exceeds the correct sum; no valid letter substitution gives this.
- Option D (35): Would require $16 + 1 + 18 = 35$ — uses wrong letter positions.

Final Answer: $RAT = 18 + 1 + 20 = 39 \Rightarrow \boxed{A}$

Answer: (A) [Go Back to Q7](#)

Q8.

Solution

Concept — Blood Relations: Trace the family relationship step by step using standard kinship terms.

Step 1 — Trace the chain:

- Ravi's *father's sister* = Ravi's **Paternal Aunt**.
- Ravi's Aunt's *son* = Ravi's **Cousin**.

Step 2 — Conclusion: Mohan is Ravi's Paternal Aunt's son, which makes Mohan Ravi's **Cousin**.

Why other options are wrong:

- Option A (Brother): Brothers share the same parents; Ravi and Mohan do not.
- Option B (Uncle): An uncle is a parent's brother; Mohan is Ravi's aunt's child, not Ravi's parent's sibling.
- Option C (Nephew): A nephew is the child of one's own sibling; Mohan is not Ravi's sibling's child.

Final Answer: Mohan is Ravi's Cousin $\Rightarrow \boxed{D}$

Answer: (D) [Go Back to Q8](#)



Q9.

Solution

Concept — Direction and Distance (Net Displacement): Track the net displacement in each direction separately, then compute the resultant straight-line distance.

Step 1 — Track displacements:

- 5 km North: vertical displacement = +5 km.
- 3 km East: horizontal displacement = +3 km.
- 5 km South: vertical displacement = +5 - 5 = 0 km (cancels the northward leg).

Step 2 — Compute straight-line distance: Net displacement: 0 km (North/South), 3 km (East).

$$PQ = \sqrt{0^2 + 3^2} = \sqrt{9} = 3 \text{ km}$$

Why other options are wrong:

- Option B (5 km): Ignores the southward return cancelling the northward walk.
- Option C (8 km): $5 + 3 = 8$ — simple addition, not net displacement.
- Option D (13 km): $5 + 3 + 5 = 13$ — total distance walked, not straight-line distance.

Final Answer: Point Q is 3 km from point P $\Rightarrow$ A

Answer: (A) [Go Back to Q9](#)

Q10.

Solution

Concept — Ranking/Position in a Row:

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

Step 1 — Apply the formula:

$$\text{Position from right} = 40 - 15 + 1 = 26$$



Step 2 — Verify: Students to Sita's left: $15 - 1 = 14$.

Students to Sita's right: $26 - 1 = 25$.

Total: $14 + 1 + 25 = 40$ ✓

Why other options are wrong:

- Option A (25th): $40 - 15 = 25$ — omits the +1 correction.
- Option C (27th): $40 - 15 + 2 = 27$ — adds +2 instead of +1.
- Option D (24th): Obtained by subtracting an incorrect base value.

Final Answer: Sita is 26th from the right $\Rightarrow$ **B**

Answer: (B) [Go Back to Q10](#)

Q11.

Solution

Concept — Syllogism (Venn Diagram Method): A conclusion is valid only if it is true in *every* possible arrangement consistent with the premises.

Step 1 — Represent the premises: "All cats are animals" $\Rightarrow$ $Cats \subset Animals$.

"Some animals are wild" $\Rightarrow$ $Animals \cap Wild \neq \emptyset$.

Step 2 — Test the conclusions:

- **Conclusion I** (Some cats are wild): The wild animals could be *entirely outside* the Cats set. Not necessarily true.
- **Conclusion II** (No cat is wild): Equally, some cats *could* be wild. Not necessarily true.

Both conclusions are *possible* but *not definite* — neither follows.

Why other options are wrong:

- Option A (Only I): I is uncertain; it does not definitely follow.
- Option B (Only II): II is also uncertain.
- Option D (Both): Neither conclusion is guaranteed.

Final Answer: Neither Conclusion I nor Conclusion II follows $\Rightarrow$ **C**

Answer: (C) [Go Back to Q11](#)



Q12.

Solution

Concept — Syllogism (Both Negative Premises): When both premises are negative (“No A is B” and “No B is C”), no definitive conclusion about the relationship between A and C can be drawn.

Step 1 — Map the premises: “No table is a chair” $\Rightarrow$ Tables and chairs are disjoint sets.

“No chair is a bench” $\Rightarrow$ Chairs and benches are disjoint sets.

Step 2 — Test the conclusions:

- **Conclusion I** (No table is a bench): Tables and benches *may or may not* overlap; the premises do not establish a direct link between them. Not certain.
- **Conclusion II** (Some benches are tables): Similarly not established by the premises.

Why other options are wrong:

- Option A (Only I): I cannot be drawn from two negative premises alone.
- Option B (Only II): II is equally unestablished.
- Option C (Both): Neither is provable from the given statements.

Final Answer: Neither Conclusion I nor Conclusion II follows $\Rightarrow$ D

Answer: (D) [Go Back to Q12](#)

Q13.

Solution

Concept — Statement and Conclusions: A conclusion is valid if it follows *directly and logically* from the statement without over-generalisation or reversal.

Step 1 — Evaluate Conclusion I: “Outdoor games promote health in children” is a direct, logical restatement of the given statement. **Conclusion I follows.**

Step 2 — Evaluate Conclusion II: “Children who do not play outdoor games are *never* healthy” is an extreme over-generalisation. The statement establishes a sufficient condition for health, not a necessary one (there could be other ways to stay healthy). **Conclusion II does not follow.**

Why other options are wrong:



- Option B (Only II): II is an unjustified extreme claim.
- Option C (Both): II is not supported by the statement.
- Option D (Neither): I is a valid and direct inference.

Final Answer: Only Conclusion I follows $\Rightarrow$ A

Answer: (A) [Go Back to Q13](#)

Q14.

Solution

Concept — Statement and Assumptions: An assumption is *implicit* if it is an unstated belief that the statement silently takes for granted in order to make sense.

Step 1 — Test Assumption I (People need energy drinks): The advertisement claims superiority among energy drinks, but does not assume that everyone *needs* energy drinks. People might buy them for many reasons, or not at all. **Assumption I is not implicit.**

Step 2 — Test Assumption II (Refresho is superior to all other energy drinks): Calling Refresho “the best energy drink” inherently assumes that it outperforms all competitors — this is the very claim being made. **Assumption II is implicit.**

Why other options are wrong:

- Option A (Only I): Assumption I is not a prerequisite of the ad’s message.
- Option C (Both): I is not implicit.
- Option D (Neither): II is clearly embedded in the word “best.”

Final Answer: Only Assumption II is implicit $\Rightarrow$ B

Answer: (B) [Go Back to Q14](#)

Q15.

Solution

Concept — Statement and Arguments (Strong vs. Weak): A *strong* argument is directly relevant to the statement, logically sound, and raises a significant point for or against it.

Step 1 — Evaluate Argument I: “Smartphones distract students” is a well-documented, direct, and substantial reason *for* banning them. The argument is relevant and significant. **Strong.**



Step 2 — Evaluate Argument II: “Smartphones aid learning and research” is an equally direct, evidence-backed, and significant reason *against* banning them. **Strong.**

Why other options are wrong:

- Option A (Only I strong): Argument II is equally substantive and relevant.
- Option B (Only II strong): Argument I is equally substantive and relevant.
- Option D (Neither strong): Both arguments directly and significantly address the core question.

Final Answer: Both Arguments I and II are strong $\Rightarrow$ **C**

Answer: (C) [Go Back to Q15](#)

Q16.

Solution

Concept — Linear Arrangement (Position Conversion): Convert all positions to “from the left” using the formula: Position from left = Total – Position from right + 1.

Step 1 — Find both positions from the left:

- A is at position 2 from the left (given directly).
- B is 3rd from the right in a row of 6: Position from left = $6 - 3 + 1 = 4$.

Step 2 — Count students between A (pos 2) and B (pos 4): Positions between 2 and 4: only position 3 — exactly 1 student.

Why other options are wrong:

- Option A (0): Would be correct only if A and B were adjacent (e.g., positions 2 and 3).
- Option B (2): Over-counts; positions 2, 3, 4 span 2 gaps but only 1 student sits between the two.
- Option C (3): Grossly over-counts; there is only 1 seat between positions 2 and 4.

Final Answer: 1 student sits between A and B $\Rightarrow$ **D**

Answer: (D) [Go Back to Q16](#)



Q17.

Solution

Concept — Circular Seating Arrangement: All persons face the centre. “Immediate right” means the adjacent seat in the *clockwise* direction.

Step 1 — Build the arrangement step by step:

- Anu is to the immediate right of Bina $\Rightarrow$ clockwise: Bina $\rightarrow$ **Anu**.
- Charu is to the immediate right of Anu $\Rightarrow$ clockwise: Anu $\rightarrow$ **Charu**.
- Dev is to the immediate right of Esha $\Rightarrow$ clockwise: Esha $\rightarrow$ **Dev**.
- Remaining persons (Esha and Dev) fill the two remaining seats after Charu.

Step 2 — Complete clockwise order and answer the question:

Bina $\rightarrow$ Anu $\rightarrow$ Charu $\rightarrow$ Esha $\rightarrow$ Dev $\rightarrow$ (Bina)

The *immediate left* of Dev (counter-clockwise from Dev) = Esha.

Why other options are wrong:

- Option B (Bina): Bina is to Dev’s immediate right (clockwise after Dev), not left.
- Option C (Charu): Charu is two seats to Dev’s right.
- Option D (Anu): Anu is three seats to Dev’s right.

Final Answer: Esha sits to the immediate left of Dev $\Rightarrow$ A

Answer: (A) [Go Back to Q17](#)

Q18.

Solution

Concept — Mathematical Operations (Symbol Substitution): Replace each operator with its actual meaning, then evaluate the resulting expression using standard BODMAS.

Step 1 — Substitute symbols in the expression $6 + 3 - 2 \times 4 \div 1$:

- $+$ becomes $\times$; $-$ becomes $\div$; $\times$ becomes $-$; $\div$ becomes $+$.

After substitution: $6 \times 3 \div 2 - 4 + 1$



Step 2 — Evaluate (BODMAS):

$$6 \times 3 = 18$$

$$18 \div 2 = 9$$

$$9 - 4 = 5$$

$$5 + 1 = 6$$

Why other options are wrong:

- Option A (4): Results from evaluating left-to-right without following operator precedence.
- Option C (8): Results from skipping the division step ($18 - 4 + 1 - 7 = 8$? — arithmetic errors).
- Option D (10): Results from using the wrong substitutions.

Final Answer: The value is 6 $\Rightarrow$ B

Answer: (B) [Go Back to Q18](#)

Q19.

Solution**Concept — Venn Diagram / Inclusion-Exclusion Principle:**

$$n(A \cup B) = n(A) + n(B) - n(A \cap B)$$

Step 1 — Identify the values:

- $n(\text{Cricket}) = 30$
- $n(\text{Football}) = 25$
- $n(\text{Cricket} \cap \text{Football}) = 10$

Step 2 — Apply the formula:

$$n(\text{Cricket} \cup \text{Football}) = 30 + 25 - 10 = 45$$

Verification with the diagram: Cricket-only = $30 - 10 = 20$; Football-only = $25 - 10 = 15$; Both = 10. Total = $20 + 15 + 10 = 45$ ✓

Why other options are wrong:

- Option A (55): $30 + 25 = 55$ — double-counts the 10 students who play both.
- Option B (40): Subtracts 15 instead of 10 — wrong overlap value used.
- Option D (35): Subtracts 20 instead of 10 — incorrect calculation.

Final Answer: 45 students play at least one sport $\Rightarrow$ C

Answer: (C) [Go Back to Q19](#)

Q20.

Solution

Concept — Calendar (Day Calculation Across Leap Year Boundary): Count the total number of days between the two dates; divide by 7 to find the number of odd days; advance the starting day by the remainder.

Step 1 — Count days from March 1, 2023 to March 1, 2024: The period covers all of 2023 (365 days, non-leap) *plus* the leap day February 29, 2024, which falls before March 1, 2024.

$$\text{Total days} = 365 + 1 = 366 = 52 \times 7 + 2.$$

$$\text{Odd days} = 2.$$

Step 2 — Advance the day: Wednesday + 2 odd days = **Friday**.

Why other options are wrong:

- Option A (Wednesday): Advances by 0 days — ignores all odd days.
- Option B (Thursday): Advances by 1 day — accounts for only 365 days, misses the leap day.
- Option C (Saturday): Advances by 3 days — overcounts odd days.

Final Answer: March 1, 2024 is a Friday $\Rightarrow$ D

Answer: (D) [Go Back to Q20](#)

Q21.

Solution

Concept — Clock Angles: The formula for the angle between the two hands at H hours and M minutes is:

$$\theta = \left| 30H - \frac{11M}{2} \right|^\circ \quad (\text{take the smaller angle if } > 180)$$



Step 1 — Substitute $H = 3, M = 0$:

$$\theta = |30 \times 3 - \frac{11 \times 0}{2}| = |90 - 0| = 90$$

Step 2 — Intuitive check: At 3:00, the minute hand is at 12 and the hour hand is at 3. The clock face is divided into 12 equal sectors of 30 each; from 12 to 3 spans $3 \times 30 = 90$. ✓

Why other options are wrong:

- Option B (180): This is the angle at 6:00, when both hands are on opposite ends of the dial.
- Option C (120): This is the angle at 4:00 ($4 \times 30 = 120$).
- Option D (60): This is the angle at 2:00 ($2 \times 30 = 60$).

Final Answer: The angle at 3:00 is 90 $\Rightarrow$ A

Answer: (A) [Go Back to Q21](#)

Q22.

Solution

Concept — Alphanumeric Series (Two Interleaved Patterns): The letter component and the number component each follow their own independent arithmetic pattern.

Step 1 — Letter pattern: A(1), C(3), E(5), G(7), I(9) — every alternate letter, advancing +2 positions each time (odd-positioned letters).

Step 2 — Number pattern: 2, 4, 6, 8, 10 — arithmetic sequence, common difference = 2.

Step 3 — Combine: Next term: letter I, number 10 $\Rightarrow$ I10.

Why other options are wrong:

- Option A (H9): H is only +1 from G; 9 is only +1 from 8. Both increments are wrong.
- Option B (J10): J skips I — +3 from G, but the letter step is +2.
- Option D (H10): H is the wrong letter; the pattern requires I.

Final Answer: The next term is I10 $\Rightarrow$ C

Answer: (C) [Go Back to Q22](#)



Q23.

Solution

Concept — Odd One Out (Perfect Squares): A perfect square is an integer expressible as n^2 for some integer n . Identify which option cannot be expressed this way.

Step 1 — Check each option:

- Option A: $16 = 4^2$ — *perfect square* ✓
- Option B: $35 = ?$ $\sqrt{35} \approx 5.916$ — **not a perfect square**
- Option C: $25 = 5^2$ — *perfect square* ✓
- Option D: $49 = 7^2$ — *perfect square* ✓

Step 2 — Identify the odd one: 16, 25, and 49 are all perfect squares. 35 is **not** ($5^2 = 25$, $6^2 = 36$; 35 lies between them).

Why other options are wrong:

- Option A (16): $4^2 = 16$ — it is a perfect square.
- Option C (25): $5^2 = 25$ — it is a perfect square.
- Option D (49): $7^2 = 49$ — it is a perfect square.

Final Answer: 35 is not a perfect square $\Rightarrow$ **B**

Answer: (B) [Go Back to Q23](#)

Q24.

Solution

Concept — Missing Number in a Grid (Multiplicative Row Pattern): Each row is an arithmetic progression where the three elements are n , $2n$, $3n$ for some base value n .

Step 1 — Identify the row pattern:

- Row 1: 3, 6, 9 ($n = 3$; values are 3×1 , 3×2 , 3×3).
- Row 2: 4, 8, 12 ($n = 4$; values are 4×1 , 4×2 , 4×3).
- Row 3: 5, 10, ? ($n = 5$; so $? = 5 \times 3 = 15$).

Step 2 — Cross-check with column pattern:

- Column 1: 3, 4, 5 — increases by +1.
- Column 2: 6, 8, 10 — increases by +2.



- Column 3: 9, 12, ? — increases by +3; so ? = $12 + 3 = 15$. ✓

Why other options are wrong:

- Option A (14): Does not fit either the row or column pattern.
- Option B (13): Does not fit either pattern.
- Option C (16): Off by 1; the column 3 increment is +3, giving $12 + 3 = 15$, not 16.

Final Answer: The missing number is 15 $\Rightarrow$ D

Answer: (D) [Go Back to Q24](#)

Q25.

Solution

Concept — Dice (Opposite Face Rule): On a standard die, opposite faces always sum to 7: the pairs are (1, 6), (2, 5), and (3, 4).

Step 1 — Identify the known face positions:

- Face showing 3 is facing the observer (front face).
- Face showing 1 is on **top**.

Step 2 — Find the bottom face: The bottom face is directly opposite the top face. Top = 1 and $1 + 6 = 7$, so bottom = 6.

Why other options are wrong:

- Option B (5): 5 is opposite 2; it is a side face in this configuration.
- Option C (4): 4 is opposite 3, which is the front face (facing the observer), not the bottom.
- Option D (2): 2 is opposite 5; it occupies a side face position.

Final Answer: The bottom face shows 6 $\Rightarrow$ A

Answer: (A) [Go Back to Q25](#)



Answer Key

Q	Ans	Q	Ans	Q	Ans	Q	Ans	Q	Ans
1	B	2	C	3	A	4	D	5	B
6	C	7	A	8	D	9	A	10	B
11	C	12	D	13	A	14	B	15	C
16	D	17	A	18	B	19	C	20	D
21	A	22	C	23	B	24	D	25	A

