NMAT Logical Reasoning

Sample Paper – 8

Duration: 40 Minutes **Maximum Marks: 108**

Instructions

- This paper contains **36** Multiple Choice Questions (Single Correct Answer), modelled on the Logical Reasoning section of **NMAT** by GMAC.
- Each correct answer carries **+3 marks**. There is **no negative marking** for incorrect or unattempted answers, so attempt every question.
- Only **one** option is correct. Choose the most appropriate answer.
- NMAT is a computer-based test with sectional time limits; attempt this practice paper in one timed sitting of about **40 minutes**.
- Use of mobile phones, calculators or electronic gadgets is strictly prohibited.

Part A: Coding-Decoding and Series

Q1. In a certain code, the number-words are coded by a single digit as follows: **THREE** $= 5$, **SEVEN** $= 5$ and **EIGHT** $= 5$. Using the same rule, how will **NINE** be coded?

(A) 4

(B) 5

(C) 3

(D) 6

Q2. Each word is coded by adding the alphabet positions of its letters. If **DOG** is coded as **26** (that is $4 + 15 + 7$), then how is **CAT** coded?

(A) 23

(B) 24

(C) 25

(D) 26

Q3. Find the next term in the letter series: **B, D, G, K, P, ____**

(A) T

(B) U

(C) V

(D) W

Q4. Find the next term in the number series: **3, 6, 11, 18, 27, ____**

(A) 38

(B) 36

(C) 40

(D) 39

Q5. Which letter lies exactly midway between the 6th letter from the left and the 20th letter from the left of the English alphabet?

(A) K

(B) L

(C) M

(D) N

Q6. In a certain code the digits are represented by symbols as follows: $2 = @$, $4 = \#$, $6 = \$$, $8 = \%$. What is the code for the number **8 6 4 2**?

(A) $\$ \% \# @$

(B) $\% \# \$ @$

(C) $\% \$ @ \#$

(D) $\% \$ \# @$

Part B: Arrangements and Puzzles

Directions (Q7–Q9): Eight students — P, Q, R, S, T, M, N and K — sit in a single straight row (the positions are numbered 1 to 8 from left to right as you look at the row). Four of them face North and four face South.

- P sits at the left end (position 1).
- K sits at the right end (position 8).
- Every student in an odd-numbered position faces North, and every student in an even-numbered position faces South.
- S sits immediately to the right of P.
- T sits immediately to the right of S.
- Q sits third to the right of P.
- M sits at position 5, and R sits immediately to the right of M.
- N sits between R and K.

Q7. How many students sit between T and N?

(A) Two

(B) Three

(C) Four

(D) One

Q8. Who sits immediately to the right of Q?

(A) M

(B) R

(C) T

(D) N

Q9. Which one of the following students faces South?

(A) T

(B) R

(C) M

(D) N

Directions (Q10–Q12): Seven boxes of different colours — Red, Blue, Green, White, Black, Pink and Yellow — are placed one above another in a single stack. The bottom box is at position 1 and the top box is at position 7.

- The Yellow box is at the top.
- The Red box is at the bottom.
- There are exactly three boxes between the Red box and the Green box.
- The White box is immediately above the Green box.
- The Pink box is at position 2.
- The Blue box is placed immediately below the Black box.

Q10. How many boxes lie between the Black box and the White box?

(A) Three

(B) Two

(C) One

(D) None

Q11. Which box is placed exactly in the middle of the stack?

(A) Black

(B) Green

(C) Blue

(D) Pink

Q12. Which box is placed immediately above the Blue box?

(A) Pink

(B) Green

(C) White

(D) Black

Part C: Blood Relations and Direction Sense

Q13. Pointing to a man in the crowd, Neha said, "His mother is the only daughter of my mother." How is Neha related to that man?

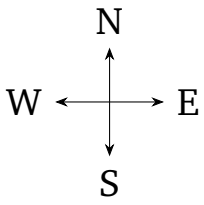
(A) Sister

(B) Mother

(C) Aunt

(D) Grandmother

Q14. One day, shortly after sunrise, Rahul stood facing a tall pole. He noticed that the shadow of the pole fell exactly to his **left**. Which direction was Rahul facing?



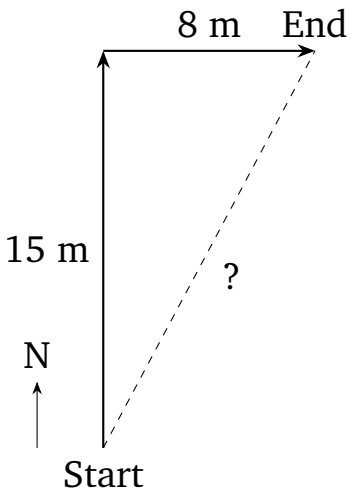
(A) South

(B) East

(C) West

(D) North

Q15. A cyclist rides 15 m towards the North, then turns right and rides 8 m towards the East. How far is she now from her starting point?



(A) 17 m

(B) 23 m

(C) 15 m

(D) 8 m

Q16. A is the father of B. C is the daughter of B. D is the brother of C. E is the mother of D. How is A related to E?

(A) Grandfather

(B) Uncle

(C) Brother-in-law

(D) Father-in-law

Q17. A man is walking and facing South. He walks 10 m forward, turns left and walks 10 m, turns left again and walks 10 m, then finally turns right and walks 5 m. Which direction is he facing now?

(A) North

(B) South

(C) West

(D) East

Part D: Syllogisms

Q18. **Statements:** All books are pens. Some pens are pencils.
Conclusions:
I. Some books are pencils.
II. Some pencils are books.
Which of the conclusions follow(s)?

(A) Only conclusion I follows

(B) Only conclusion II follows

(C) Neither I nor II follows

(D) Both I and II follow

Q19. **Statements:** All cups are plates. All plates are dishes.
Conclusions:
I. All cups are dishes.
II. Some dishes are cups.
Which of the conclusions follow(s)?

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

Q20. **Statements:** Some pens are red. No red thing is blue.
Conclusions:
I. Some pens are not blue.
II. All pens are blue.
Which of the conclusions follow(s)?

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

Q21. **Statements:** All lions are animals. No animal is a plant.
Conclusions:
I. No lion is a plant.
II. Some animals are lions.
Which of the conclusions follow(s)?

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

Q22. **Statements:** Some teachers are writers. All writers are poets.
Conclusions:

I. All teachers are poets.
II. Some teachers are poets.
Which of the conclusions follow(s)?

(A) Only conclusion I follows

(B) Only conclusion II follows

(C) Both I and II follow

(D) Neither I nor II follows

Part E: Critical Reasoning and Verbal Logic

Q23. **Statement:** "Buy our new smartphone — it has the longest battery life in its class." — an advertisement.
Which of the following is an assumption **implicit** in the statement?

(A) No other smartphone has a battery at all.

(B) The new smartphone is the cheapest one available.

(C) Long battery life is a feature that buyers care about.

(D) People never charge their phones.

Q24. **Argument:** Our company should switch fully to remote working, because doing so will sharply cut the company's costs.
Which of the following, if true, most **strengthens** the argument?

(A) Many employees enjoy working from home.

(B) Office rent is the firm's single largest expense, and remote working would let it give up the office entirely.

(C) Remote working has become popular in many countries.

(D) The company already provides laptops to all its staff.

Q25. **Argument:** The town should build a new bridge on the eastern route, because this will cut travel time to the market.
Which of the following, if true, most **weakens** the argument?

(A) The new bridge would be expensive to construct.

(B) Almost no one travelling to the market uses the eastern route; nearly everyone takes a shorter western road.

(C) All bridges require regular maintenance.

(D) The market is very popular with shoppers.

Q26. **Statement:** A large number of road accidents keep occurring at a particular junction because it has no traffic signals.
Which of the following is the most appropriate **course of action**?

(A) The junction should be closed permanently.

(B) The accidents should simply be ignored.

(C) All vehicles should be banned from the entire town.

(D) Proper traffic signals and clear signage should be installed at the junction.

Q27. **Statement I:** The region received far below-average rainfall this year.
Statement II: The region's crop output dropped sharply this year.
Which of the following best describes the relationship between the two statements?

(A) Statement II is the cause and Statement I is its effect.

(B) The two statements are entirely unrelated.

(C) Both statements are effects of some other, independent cause.

(D) Statement I is the cause and Statement II is its effect.

Q28. **Statement:** "Students who sleep for at least seven hours a night tend to perform better in examinations than those who sleep less."
Which of the following inferences follows most logically?

(A) Students who sleep well never fail an examination.

(B) Getting enough sleep can help students perform better in examinations.

(C) Examinations are not important for anyone.

(D) Sleep is the only factor that decides examination results.

Q29. **Statement:** "The library will remain closed this Sunday for its annual stock-taking."
Which of the following conclusions follows?

(A) The library is never open on any day.

(B) Stock-taking is carried out in the library every day.

(C) The library is closed this Sunday because of the annual stock-taking.

(D) Nobody ever uses the library.

Q30. **Statement:** "To reduce the use of paper, the college has asked all departments to share their notices by email from now on."
Which of the following is an assumption **implicit** in the statement?

(A) The people who need to read the notices can access email.

(B) Paper will be completely banned across the college.

(C) No one ever reads notices put up on paper.

(D) Email will always remain free of any cost.

Part F: Analytical and Miscellaneous

Q31. Choose the option that best completes the analogy: **PEN : WRITE :: KNIFE : ?**

(A) Sharp

(B) Cut

(C) Kitchen

(D) Metal

Q32. Find the odd one out.

(A) Copper

(B) Iron

(C) Diamond

(D) Gold

Q33. In a certain code, **LAMP** is written as **KZLO**. How is **DESK** written in the same code?

(A) CDRK

(B) CDSJ

(C) CDRJ

(D) EDRJ

Q34. In a class, Sita ranks 9th from the top and 15th from the bottom. How many students are there in the class?

(A) 25

(B) 24

(C) 22

(D) 23

Q35. If "$+$" means "$\times$", "$-$" means "$+$", "$\times$" means "$\div$" and "$\div$" means "$-$", then find the value of:

$$8 \div 4 \times 2 + 3 - 1$$

(A) 5

(B) 4

(C) 6

(D) 3

Q36. In each row the third number is obtained from the first two by the same rule. Find the missing number.

$$\begin{array}{ccc} 4 & 6 & 20 \\ 3 & 5 & 16 \\ 7 & 2 & ? \end{array}$$

(A) 18

(B) 20

(C) 16

(D) 14

Detailed Solutions

Q1.

Solution

Concept — Number-word coding by letter count: Each number-word is replaced by the count of letters it contains.

Step 1: Check the given codes. THREE has the letters T, H, R, E, E, which is 5 letters, so its code is 5.

Step 2: SEVEN has S, E, V, E, N, which is 5 letters $\rightarrow 5$; EIGHT has E, I, G, H, T, which is 5 letters $\rightarrow 5$. The rule "code $=$ number of letters" is confirmed.

Step 3: Now count the letters of NINE: N, I, N, E, which is 4 letters.

Step 4: So NINE is coded as **4**.

Why other options are wrong:

- Option B: 5 is the count for the five-letter words, not for NINE.
- Option C: 3 undercounts the letters of NINE.
- Option D: 6 overcounts the letters of NINE.

Final Answer: NINE is coded as 4 $\Rightarrow$ $\boxed{\text{A}}$

Answer: (A) Go Back to Q1

Q2.

Solution

Concept — Sum of alphabet positions: Replace each letter by its position number, then add.

Step 1: Confirm the rule with DOG: D $= 4$, O $= 15$, G $= 7$, and $4 + 15 + 7 = 26$. Correct.

Step 2: Find the positions of the letters of CAT. C is the 3rd letter $\rightarrow 3$.

Step 3: A is the 1st letter $\rightarrow 1$; T is the 20th letter $\rightarrow 20$.

Step 4: Add them: $3 + 1 + 20 = 24$.

Step 5: So CAT is coded as **24**.

Why other options are wrong:

- Option A: 23 undercounts one of the positions.
- Option C: 25 overcounts by one.
- Option D: 26 is the code for DOG, not CAT.

Final Answer: CAT is coded as 24 $\Rightarrow$ B

Answer: (B) Go Back to Q2

Q3.

Solution

Concept — Letter series with growing gaps: Convert letters to positions and study the differences.

Step 1: Positions: B $= 2$, D $= 4$, G $= 7$, K $= 11$, P $= 16$.

Step 2: Differences: $4 - 2 = 2$, $7 - 4 = 3$, $11 - 7 = 4$, $16 - 11 = 5$.

Step 3: The differences increase by 1 each time: $2, 3, 4, 5$, so the next difference is 6.

Step 4: The next position is $16 + 6 = 22$.

Step 5: The 22nd letter of the alphabet is **V**.

Why other options are wrong:

- Option A: T is position 20, a gap of only 4.
- Option B: U is position 21, a gap of 5, repeating the previous gap.
- Option D: W is position 23, a gap of 7, one too many.

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

Answer: (C) Go Back to Q3

Q4.

Solution

Concept — Number series with odd-number gaps: Look at the differences between consecutive terms.

Step 1: Terms: $3, 6, 11, 18, 27$.

Step 2: Differences: $6 - 3 = 3$, $11 - 6 = 5$, $18 - 11 = 7$, $27 - 18 = 9$.

Step 3: The differences are the odd numbers $3, 5, 7, 9$, so the next difference is 11.

Step 4: The next term is $27 + 11 = 38$.

Why other options are wrong:

- Option B: 36 needs a gap of 9, repeating the last gap.
- Option C: 40 needs a gap of 13, skipping 11.
- Option D: 39 needs a gap of 12, which breaks the odd-number pattern.

Final Answer: The next term is 38 $\Rightarrow$ A

Answer: (A) Go Back to Q4

Q5.

Solution

Concept — Midway position: The letter midway between two positions is found by averaging the two position numbers.

Step 1: The 6th letter from the left is F (position 6).

Step 2: The 20th letter from the left is T (position 20).

Step 3: The midway position is $\frac{6+20}{2} = \frac{26}{2} = 13$.

Step 4: The 13th letter of the alphabet is **M**.

Why other options are wrong:

- Option A: K is position 11, short of the middle.
- Option B: L is position 12, one short of the middle.
- Option D: N is position 14, one beyond the middle.

Final Answer: The middle letter is M $\Rightarrow$ C

Answer: (C) Go Back to Q5

Q6.

Solution

Concept — Symbol substitution: Replace each digit by its assigned symbol, one at a time.

Step 1: The key is $2 = @$, $4 = \#$, $6 = \$$, $8 = \%$.

Step 2: The number is 8 6 4 2. Replace the first digit: $8 \rightarrow \%$.

Step 3: Replace the second digit: $6 \to \$$.

Step 4: Replace the third digit: $4 \to \#$; and the fourth: $2 \to @$.

Step 5: Reading in order gives $\% \ \$ \ \# \ @$.

Why other options are wrong:

- Option A: $\$ \ \% \ \# \ @$ swaps the first two symbols.
- Option B: $\% \ \# \ \$ \ @$ swaps the codes for 6 and 4.
- Option C: $\% \ \$ \ @ \ \#$ swaps the last two symbols.

Final Answer: The code is $\% \ \$ \ \# \ @ \Rightarrow$ D

Answer: (D) Go Back to Q6

Q7.

Solution

Concept — Linear arrangement: Fix the end seats first, then place the rest using the "immediately to the right" clues.

Step 1: P is at position 1 and K is at position 8.

Step 2: "S immediately right of P" gives S $= 2$; "T immediately right of S" gives T $= 3$; "Q third to the right of P" gives Q $= 4$.

Step 3: M $= 5$ is given, and "R immediately right of M" gives R $= 6$. "N between R and K" leaves N $= 7$.

Step 4: The full row (left to right) is P, S, T, Q, M, R, N, K. Odd positions face North (P, T, M, N) and even positions face South (S, Q, R, K).

P	S	T	Q	M	R	N	K
N	S	N	S	N	S	N	S

Step 5: T is at position 3 and N is at position 7. The seats strictly between them are positions 4, 5 and 6, which is **three** students.

Why other options are wrong:

- Option A: Two would miss one of the three seats.
- Option C: Four would include an end position.
- Option D: One is far too few.

Final Answer: Three students sit between T and N $\Rightarrow$ B

Answer: (B) Go Back to Q7

Q8.

Solution

Concept — Reading positions: Use the row found above and read off the seat number.

Step 1: The row is P(1), S(2), T(3), Q(4), M(5), R(6), N(7), K(8).

Step 2: Q is at position 4.

Step 3: The seat immediately to the right of Q is position 5, which is **M**.

Why other options are wrong:

- Option B: R is at position 6, two seats from Q.
- Option C: T is at position 3, to the left of Q.
- Option D: N is at position 7, far from Q.

Final Answer: M sits immediately to the right of Q $\Rightarrow$ A

Answer: (A) Go Back to Q8

Q9.

Solution

Concept — Facing rule: Odd positions face North; even positions face South.

Step 1: List the positions: P(1), S(2), T(3), Q(4), M(5), R(6), N(7), K(8).

Step 2: South-facing students are those in even positions: S(2), Q(4), R(6), K(8).

Step 3: Among the options, only **R** (position 6) is in an even position, so R faces South.

Why other options are wrong:

- Option A: T is at position 3 (odd), so T faces North.
- Option C: M is at position 5 (odd), so M faces North.
- Option D: N is at position 7 (odd), so N faces North.

Final Answer: R faces South $\Rightarrow$ B

Answer: (B) Go Back to Q9

Q10.

Solution

Concept — Stack puzzle: Fix the top and bottom, then use the "between" and "immediately above/below" clues.

Step 1: Yellow is at position 7 (top) and Red is at position 1 (bottom).

Step 2: "Three boxes between Red and Green" means positions 2, 3, 4 lie between them, so Green $= 5$.

Step 3: "White immediately above Green" gives White $= 6$. Pink $= 2$ is given.

Step 4: Positions 3 and 4 remain for Blue and Black. "Blue immediately below Black" gives Blue $= 3$ and Black $= 4$. The stack is:

7	Yellow
6	White
5	Green
4	Black
3	Blue
2	Pink
1	Red

Step 5: Black is at position 4 and White is at position 6. Only position 5 (Green) lies between them, that is **one** box.

Why other options are wrong:

- Option A: Three is far too many.
- Option B: Two would need Black and White two apart with a gap of two.
- Option D: None would mean they are adjacent, but Green sits between them.

Final Answer: One box lies between Black and White $\Rightarrow$ C

Answer: (C) Go Back to Q10

Q11.

Solution

Concept — Middle of a stack: With seven boxes, the middle is position 4.

Step 1: The stack (bottom to top) is Red(1), Pink(2), Blue(3), Black(4), Green(5), White(6), Yellow(7).

Step 2: The middle position of seven is the fourth, since three boxes lie below and three above it.

Step 3: Position 4 is occupied by **Black**.

Why other options are wrong:

- Option B: Green is at position 5.
- Option C: Blue is at position 3.
- Option D: Pink is at position 2.

Final Answer: Black is in the middle $\Rightarrow$ $\boxed{\text{A}}$

Answer: (A) Go Back to Q11

Q12.

Solution

Concept — Immediately above: Read the box one position higher than Blue.

Step 1: Blue is at position 3.

Step 2: The box immediately above is at position 4.

Step 3: Position 4 is **Black**.

Why other options are wrong:

- Option A: Pink is at position 2, below Blue.
- Option B: Green is at position 5.
- Option C: White is at position 6.

Final Answer: Black lies immediately above Blue $\Rightarrow$ $\boxed{\text{D}}$

Answer: (D) Go Back to Q12

Q13.

Solution

Concept — Blood relations from a conversation: Simplify the innermost phrase first.

Step 1: "The only daughter of my mother" is spoken by Neha, so it must be Neha herself (she is her mother's only daughter).

Step 2: The statement then reads: "His mother is Neha."

Step 3: If Neha is the man's mother, then Neha is his **mother**.

Why other options are wrong:

- Option A: Sister would need Neha and the man to share parents, which is not stated.
- Option C: An aunt would be the sister of a parent, not the man's mother.
- Option D: A grandmother is one generation further back.

Final Answer: Neha is the man's mother $\Rightarrow$ $\boxed{\text{B}}$

Answer: (B) Go Back to Q13

Q14.

Solution

Concept — Shadows and direction: Just after sunrise the Sun is in the East, so all shadows fall towards the West.

Step 1: Shortly after sunrise the Sun is in the East, so the pole's shadow points towards the **West**.

Step 2: The shadow falls to Rahul's left, so West is on his left-hand side.

Step 3: A person whose left hand points West must be facing **North** (facing North, the left hand points West and the right hand points East).

Step 4: So Rahul is facing North.

Why other options are wrong:

- Option A: Facing South would put West on his right, not his left.
- Option B: Facing East would put West behind him.
- Option C: Facing West would put the shadow straight ahead, not to his side.

Final Answer: Rahul is facing North $\Rightarrow$ $\boxed{\text{D}}$

Answer: (D) Go Back to Q14

Q15.

Solution

Concept — Shortest distance: The straight-line distance is the hypotenuse of the right triangle formed by the two perpendicular legs.

Step 1: The cyclist rides 15 m North.

Step 2: A right turn makes her face East; she rides 8 m East.

Step 3: The two legs (15 m and 8 m) are at right angles, so the distance is $\sqrt{15^2 + 8^2}$.

Step 4: $15^2 + 8^2 = 225 + 64 = 289$.

Step 5: $\sqrt{289} = 17$, so she is 17 m from the start.

Why other options are wrong:

- Option B: 23 m adds the two legs directly $(15 + 8)$.
- Option C: 15 m uses only the northward leg.
- Option D: 8 m uses only the eastward leg.

Final Answer: The distance is 17 m $\Rightarrow$ $\boxed{\text{A}}$

Answer: (A) Go Back to Q15

Q16.

Solution

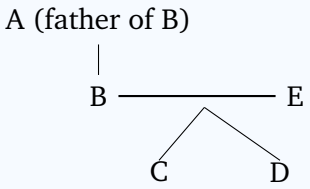
Concept — Family tree: Draw the links and read off the relation between A and E.

Step 1: A is the father of B, so A is one generation above B.

Step 2: C is the daughter of B and D is the brother of C, so C and D are both children of B.

Step 3: E is the mother of D. Since D is B's child, E is the mother of B's children, so E is B's wife.

Step 4: A is B's father, and E is B's wife, so A is the father of E's husband, i.e. E's **father-in-law**.



Why other options are wrong:

- Option A: A grandfather relation would link A to C or D, not to E.
- Option B: Uncle does not fit the direct father-to-spouse chain.
- Option C: Brother-in-law would need A and E to be of the same generation.

Final Answer: A is the father-in-law of E $\Rightarrow$ D

Answer: (D) Go Back to Q16

Q17.

Solution

Concept — Tracking turns: A left turn rotates the facing direction 90° anticlockwise; a right turn rotates it 90° clockwise. Only the final facing direction matters.

Step 1: He starts facing South and walks 10 m; still facing South.

Step 2: A left turn from South makes him face East; he walks 10 m East.

Step 3: A second left turn from East makes him face North; he walks 10 m North.

Step 4: A right turn from North makes him face East; he walks 5 m East.

Step 5: His final facing direction is **East**.

Why other options are wrong:

- Option A: North was his facing direction only before the last turn.
- Option B: South was only his starting direction.
- Option C: He never ends up facing West.

Final Answer: He is now facing East $\Rightarrow$ D

Answer: (D) Go Back to Q17

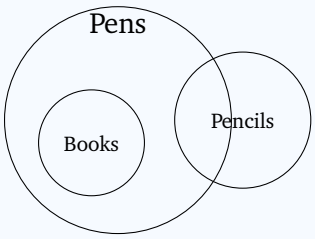
Q18.

Solution

Concept — Syllogism (all + some): An "all" statement joined to a "some" statement does not always link the end terms. A Venn diagram shows why.

Step 1: "All books are pens" places the book circle inside the pen circle.

Step 2: "Some pens are pencils" makes the pen and pencil circles overlap, but this overlap need not touch the book circle.



Step 3: The pencils that are pens may lie entirely outside the book circle, so no book need be a pencil. Conclusion I does not follow.

Step 4: Since "Some pencils are books" is just the converse of I, it fails for the same reason. Conclusion II does not follow.

Step 5: Neither conclusion follows.

Why other options are wrong:

- Options A and B: Each accepts a conclusion that the diagram does not force.
- Option D: "Both" cannot hold when neither is guaranteed.

Final Answer: Neither I nor II follows $\Rightarrow$ $\boxed{\text{C}}$

Answer: (C) Go Back to Q18

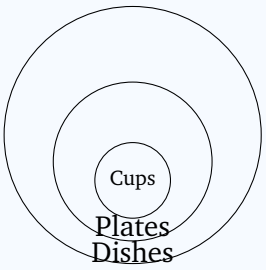
Q19.

Solution

Concept — Syllogism (chain of "all"): Two "all" statements sharing a middle term link the end terms.

Step 1: "All cups are plates" places the cup circle inside the plate circle.

Step 2: "All plates are dishes" places the plate circle inside the dish circle.



Step 3: Cups lie inside plates, and plates lie inside dishes, so every cup is a dish. Conclusion I (All cups are dishes) follows.

Step 4: If all cups are dishes, then at least those dishes are cups, so "Some dishes are cups" also follows. Conclusion II follows.

Step 5: Both conclusions follow.

Why other options are wrong:

- Options B and C: Each accepts only one conclusion, but both are valid.
- Option D: "Neither" ignores the clear chain of inclusion.

Final Answer: Both I and II follow $\Rightarrow$ A

Answer: (A) Go Back to Q19

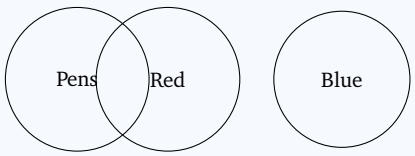
Q20.

Solution

Concept — Syllogism (some + no): Combine an overlap with an exclusion using a Venn diagram.

Step 1: "Some pens are red" makes the pen and red circles overlap.

Step 2: "No red thing is blue" keeps the red and blue circles fully separate.



Step 3: The pens that are red cannot be blue, since no red thing is blue. So there are pens that are not blue. Conclusion I (Some pens are not blue) follows.

Step 4: "All pens are blue" is far too strong and is contradicted by the red pens, which are not blue. Conclusion II does not follow.

Step 5: Only Conclusion I follows.

Why other options are wrong:

- Option A: "Neither" ignores that I clearly follows.
- Option B: II is contradicted by the red pens.
- Option D: Since II fails, "both" is wrong.

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

Answer: (C) Go Back to Q20

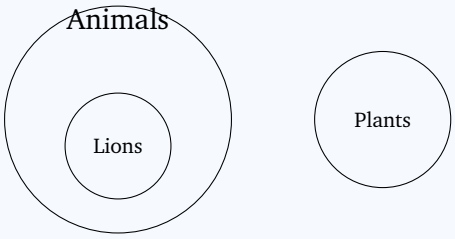
Q21.

Solution

Concept — Syllogism (all + no): A universal inclusion joined to a universal exclusion gives a firm conclusion.

Step 1: "All lions are animals" places the lion circle inside the animal circle.

Step 2: "No animal is a plant" keeps the animal circle fully apart from the plant circle.



Step 3: Lions are inside animals, and no animal is a plant, so no lion can be a plant. Conclusion I (No lion is a plant) follows.

Step 4: Since all lions are animals and lions exist, some animals are lions. Conclusion II (Some animals are lions) follows.

Step 5: Both conclusions follow.

Why other options are wrong:

- Options B and C: Each accepts only one conclusion, but both hold.
- Option D: "Neither" ignores both valid conclusions.

Final Answer: Both I and II follow $\Rightarrow$ A

Answer: (A) Go Back to Q21

Q22.

Solution

Concept — Syllogism (some + all): A "some" statement carried through an "all" statement gives a "some" conclusion, but not an "all" one.

Step 1: "Some teachers are writers" means part of the teacher group is also writers.

Step 2: "All writers are poets" places every writer inside the poet group.

Step 3: The teachers who are writers are therefore poets, so at least some teachers are poets. Conclusion II (Some teachers are poets) follows.

Step 4: Conclusion I (All teachers are poets) is too strong; the teachers who are not writers need not be poets. It does not follow.

Step 5: Only Conclusion II follows.

Why other options are wrong:

- Option A: I overstates the case; not every teacher is covered.
- Option C: Since I fails, "both" is wrong.
- Option D: II clearly follows, so "neither" is wrong.

Final Answer: Only Conclusion II follows $\Rightarrow$ $\boxed{\text{B}}$

Answer: (B) Go Back to Q22

Q23.

Solution

Concept — Implicit assumption: An assumption is something taken for granted that must hold for the statement to make sense.

Step 1: The advertisement promotes the phone by highlighting "the longest battery life in its class".

Step 2: Such an appeal only works if the seller assumes that battery life is something buyers actually value.

Step 3: So the implicit assumption is that long battery life is a feature buyers care about (Option C).

Why other options are wrong:

- Option A: The ad never claims other phones lack batteries.

- Option B: Price is not mentioned in the appeal.
- Option D: Nothing is said about charging habits.

Final Answer: The implicit assumption is Option C $\Rightarrow$ $\boxed{C}$

Answer: (C) Go Back to Q23

Q24.

Solution

Concept — Strengthening an argument: The best strengthener gives direct evidence that the action produces the claimed benefit.

Step 1: The argument claims that switching to remote work will sharply cut the company's costs.

Step 2: Costs fall most if the largest expense can be removed by the switch.

Step 3: Option B says office rent is the biggest expense and remote work removes it entirely, directly supporting the cost-cutting claim.

Why other options are wrong:

- Option A: Employees enjoying home work does not address costs.
- Option C: Popularity elsewhere is not evidence of savings here.
- Option D: Already owning laptops is a minor point, not a saving from the switch.

Final Answer: Option B most strengthens the argument $\Rightarrow$ $\boxed{B}$

Answer: (B) Go Back to Q24

Q25.

Solution

Concept — Weakening an argument: The best weakener shows that the action will not deliver the promised benefit.

Step 1: The argument says the bridge on the eastern route will cut travel time to the market.

Step 2: That benefit only matters if people actually travel on the eastern route.

Step 3: Option B says almost no one uses the eastern route, as nearly everyone takes a shorter western road. So the bridge would help hardly anyone, undermin-

ing the argument.

Why other options are wrong:

- Option A: High cost is a separate concern, not about travel time.
- Option C: Maintenance applies to every bridge and does not target this claim.
- Option D: A popular market is a reason to improve access, not a weakener.

Final Answer: Option B most weakens the argument $\Rightarrow$ $\boxed{\text{B}}$

Answer: (B) Go Back to Q25

Q26.

Solution

Concept — Course of action: A good course of action addresses the stated cause of the problem in a practical way.

Step 1: The problem is repeated accidents at a junction that lacks traffic signals.

Step 2: The direct remedy is to supply what is missing, namely proper signals and clear signage.

Step 3: Option D does exactly this, so it is the most appropriate action.

Why other options are wrong:

- Option A: Closing the junction permanently is extreme and disrupts traffic.
- Option B: Ignoring the accidents solves nothing.
- Option C: Banning all vehicles from the town is wildly disproportionate.

Final Answer: Option D is the appropriate course of action $\Rightarrow$ $\boxed{\text{D}}$

Answer: (D) Go Back to Q26

Q27.

Solution

Concept — Cause and effect: Decide which event naturally brings about the other.

Step 1: Statement I: the region had far below-average rainfall.

Step 2: Low rainfall reduces the water available to crops, which lowers the harvest.

Step 3: Statement II: crop output dropped sharply. This is the expected result of the poor rainfall.

Step 4: So Statement I is the cause and Statement II is its effect (Option D).

Why other options are wrong:

- Option A: A poor harvest did not cause the low rainfall.
- Option B: The two events are clearly connected.
- Option C: No separate common cause is suggested.

Final Answer: Statement I is the cause of Statement II $\Rightarrow$ $\boxed{\text{D}}$

Answer: (D) Go Back to Q27

Q28.

Solution

Concept — Inference: A valid inference is a measured conclusion the statement reasonably supports.

Step 1: The statement links at least seven hours of sleep to better examination performance.

Step 2: From this it is reasonable to infer that getting enough sleep can help students perform better.

Step 3: Option B states exactly this moderate inference.

Why other options are wrong:

- Option A: "Never fail" is far too strong.
- Option C: The statement does not call exams unimportant.
- Option D: It never claims sleep is the only factor.

Final Answer: Option B is the logical inference $\Rightarrow$ $\boxed{\text{B}}$

Answer: (B) Go Back to Q28

Q29.

Solution

Concept — Statement and conclusion: A conclusion must follow directly from the wording of the statement.

Step 1: The statement says the library will stay closed this Sunday for its annual stock-taking.

Step 2: This directly gives both the closure and its reason.

Step 3: Option C restates this: the library is closed this Sunday because of the annual stock-taking, so it follows.

Why other options are wrong:

- Option A: A closure on one Sunday does not mean it is never open.
- Option B: Stock-taking is annual, not daily.
- Option D: Nothing suggests the library is unused.

Final Answer: Option C follows from the statement $\Rightarrow$ $\boxed{C}$

Answer: (C) Go Back to Q29

Q30.

Solution

Concept — Implicit assumption: The plan makes sense only if a certain belief is taken for granted.

Step 1: The college asks departments to share notices by email to reduce paper use.

Step 2: Sending notices by email only works if the people who need them can actually access email.

Step 3: Option A captures this assumption.

Why other options are wrong:

- Option B: A total ban on paper is not assumed by the plan.
- Option C: The plan does not assume paper notices go unread.
- Option D: The cost of email is not part of the decision.

Final Answer: Option A is the implicit assumption $\Rightarrow$ $\boxed{A}$

Answer: (A) Go Back to Q30

Q31.

Solution

Concept — Analogy: Name the relationship in the first pair, then find the option that repeats it.

Step 1: A pen is a tool, and its main function is to write.

Step 2: The relationship is "tool : the action it is used for".

Step 3: A knife is a tool used to cut, so the matching action is **cut** (Option B).

Why other options are wrong:

- Option A: "Sharp" describes the knife, it is not its action.
- Option C: "Kitchen" is where a knife may be used, not its action.
- Option D: "Metal" is what a knife is made of, not its function.

Final Answer: Knife : Cut completes the analogy $\Rightarrow \boxed{\text{B}}$

Answer: (B) Go Back to Q31

Q32.

Solution

Concept — Odd one out: Find the category shared by all but one item.

Step 1: Copper, Iron and Gold are all metals.

Step 2: Diamond is a form of carbon, not a metal.

Step 3: So the odd one out is **Diamond** (Option C).

Why other options are wrong:

- Option A: Copper is a metal.
- Option B: Iron is a metal.
- Option D: Gold is a metal.

Final Answer: Diamond is the odd one out $\Rightarrow \boxed{\text{C}}$

Answer: (C) Go Back to Q32

Q33.

Solution

Concept — Coding by shift: Find the shift from the sample word, then apply it letter by letter.

Step 1: In LAMP → KZLO, each letter moves back by one: L→K, A→Z (A wraps to Z), M→L, P→O.

Step 2: The rule is -1 for every letter (with A wrapping round to Z).

Step 3: Apply to DESK: D→C, E→D, S→R, K→J.

Step 4: The code is **CDRJ**.

Why other options are wrong:

- Option A: CDRK leaves the K unshifted.
- Option B: CDSJ leaves the S unshifted.
- Option D: EDRJ shifts the D forward instead of back.

Final Answer: DESK is coded as CDRJ $\Rightarrow$ $\boxed{\text{C}}$

Answer: (C) Go Back to Q33

Q34.

Solution

Concept — Rank from both ends: If a person is mth from the top and nth from the bottom, the total is $m + n - 1$ (the person is counted once from each side).

Step 1: Sita is 9th from the top, so 8 students are above her.

Step 2: Sita is 15th from the bottom, so 14 students are below her.

Step 3: Total $= 8 + 1 + 14 = 23$, which equals $9 + 15 - 1$.

Step 4: So there are 23 students in the class.

Why other options are wrong:

- Option A: 25 adds the two ranks without removing the double count.
- Option B: 24 removes nothing extra and is one too many.
- Option C: 22 subtracts one too many.

Final Answer: There are 23 students $\Rightarrow$ $\boxed{\text{D}}$

Answer: (D) Go Back to Q34

Q35.

Solution

Concept — Operator substitution: Replace each symbol by the operation it stands for, then evaluate using the normal order of operations.

Step 1: The substitutions are $+ \to \times$, $- \to +$, $\times \to \div$, $\div \to -$.

Step 2: Rewrite $8 \div 4 \times 2 + 3 - 1$ as $8 - 4 \div 2 \times 3 + 1$.

Step 3: Do division and multiplication from left to right: $4 \div 2 = 2$.

Step 4: Then $2 \times 3 = 6$, so the expression becomes $8 - 6 + 1$.

Step 5: Now work left to right: $8 - 6 = 2$, and $2 + 1 = 3$.

Why other options are wrong:

- Option A: 5 comes from mishandling the order of operations.
- Option B: 4 skips one of the steps.
- Option C: 6 stops before the final $-6 + 1$.

Final Answer: The value is 3 $\Rightarrow$ $\boxed{\text{D}}$

Answer: (D) Go Back to Q35

Q36.

Solution

Concept — Number matrix: Find one rule that turns the first two numbers of a row into the third, then test it on every row.

Step 1: Row 1: $(4 + 6) \times 2 = 10 \times 2 = 20$, which matches the third number.

Step 2: Row 2: $(3 + 5) \times 2 = 8 \times 2 = 16$, which also matches.

Step 3: The rule is: third number $=$ (first $+$ second) $\times 2$.

Step 4: Row 3: $(7 + 2) \times 2 = 9 \times 2 = 18$.

Why other options are wrong:

- Option B: 20 repeats the first row's answer.
- Option C: 16 repeats the second row's answer.
- Option D: 14 comes from adding without doubling correctly.

Final Answer: The missing number is 18 $\Rightarrow$ $\boxed{\text{A}}$

Answer: (A) Go Back to Q36

Answer Key

Q	Ans	Q	Ans	Q	Ans	Q	Ans	Q	Ans
1	A	2	B	3	C	4	A	5	C
6	D	7	B	8	A	9	B	10	C
11	A	12	D	13	B	14	D	15	A
16	D	17	D	18	C	19	A	20	C
21	A	22	B	23	C	24	B	25	B
26	D	27	D	28	B	29	C	30	A
31	B	32	C	33	C	34	D	35	D
36	A								