

Symbiosis Entrance Test (SET)

Analytical & Logical Reasoning — Sample Paper 2

Total Questions:	12
Maximum Marks:	12
Duration:	12 minutes
Marking Scheme:	+1 for each correct answer; no negative marking
Mode:	Online CBT (Computer Based Test)

Instructions

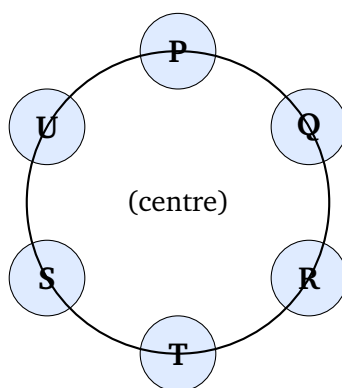
- Read each question carefully before selecting your answer.
- Each question carries **1 mark**. There is **no negative marking** for wrong answers.
- Do not spend too much time on any single question; move on and return if time permits.
- All questions are compulsory. You may attempt them in any order.
- Once the exam duration is over, the system will auto-submit your responses.

ANALYTICAL & LOGICAL REASONING

Read the following information carefully and answer Questions 1 and 2.

Six persons — P, Q, R, S, T, and U — are sitting around a circular table, all facing the centre.

- T sits directly opposite P.
- Q sits to the immediate right of P.
- R sits to the immediate left of T.
- S is not adjacent to P.



Q1. Who sits directly opposite to Q?

- (A) T
- (B) S
- (C) R
- (D) U

Q2. How many persons sit between T and U when counted clockwise from T?

- (A) 0
- (B) 2
- (C) 1
- (D) 3



Q3. In the following question, two statements are given followed by two conclusions. Assuming the statements to be true, decide which conclusion(s) logically follow(s).

Statements:

- (I) No pen is a pencil.
- (II) All pencils are stationery items.

Conclusions:

- I. No pen is a stationery item.
 - II. Some stationery items are not pens.
- (A) Both I and II follow
 - (B) Only I follows
 - (C) Neither follows
 - (D) Only II follows

Q4. In the following question, two statements are given followed by two conclusions. Assuming the statements to be true, decide which conclusion(s) logically follow(s).

Statements:

- (I) All doctors are engineers.
- (II) All engineers are graduates.

Conclusions:

- I. All doctors are graduates.
 - II. Some graduates are doctors.
- (A) Both I and II follow
 - (B) Only I follows
 - (C) Only II follows



(D) Neither follows

Q5. In a certain code language, CALM is written as ECNO. How will DARK be coded in the same language?

(A) FCTN

(B) FCTM

(C) FDTM

(D) FCSM

Q6. P is the son of Q. Q is the sister of R. R is the mother of S. How is P related to S?

(A) Brother

(B) Uncle

(C) Cousin

(D) Nephew

Q7. Ravi's brother's father's wife is Priya. How is Priya related to Ravi?

(A) Aunt

(B) Sister

(C) Grandmother

(D) Mother

Q8. Find the missing number in the series: 2, 4, 8, 16, 32, ?

(A) 64

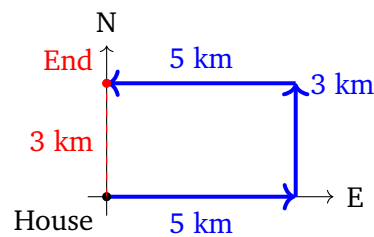
(B) 48

(C) 56

(D) 72



Q9. Starting from his house, Rahul walks 5 km towards the East. He then turns left and walks 3 km. He again turns left and walks 5 km. How far is he from his house?



- (A) 5 km
- (B) 3 km
- (C) 8 km
- (D) 4 km

Q10. India : Rupee :: Japan : ?

- (A) Dollar
- (B) Pound
- (C) Yen
- (D) Euro

Q11. In the following question, two statements are given followed by two conclusions. Assuming the statements to be true, decide which conclusion(s) logically follow(s).

Statements:

- (I) Some cats are dogs.
- (II) Some dogs are black.

Conclusions:

- I. Some cats are black.
- II. All black things are dogs.



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

Q12. If KICK = 11, LICK = 12, MICE = 13, then NICE =?

- (A) 14
- (B) 13
- (C) 15
- (D) 16



ANSWER KEY

Q.No	Ans	Q.No	Ans	Q.No	Ans	Q.No	Ans	Q.No	Ans
1	B	2	C	3	D	4	A	5	B
6	C	7	D	8	A	9	B	10	C
11	D	12	A						

DETAILED SOLUTIONS

Q1.

Solution

The seating arrangement (clockwise) is: **P(1) – Q(2) – R(3) – T(4) – S(5) – U(6)**.

In a 6-person circular arrangement, each person's opposite is 3 seats away. Q is at seat 2, so the person directly opposite Q is at seat $2 + 3 = 5$, which is **S**.

Answer: (B)

[Go Back to Q 1](#)

Q2.

Solution

Starting from T (seat 4) and counting clockwise: **T(4) → S(5) → U(6)**.

Between T and U in the clockwise direction, only **S** sits. Hence, **1 person** sits between T and U.

Answer: (C)

[Go Back to Q 2](#)

Q3.

Solution

Given: (I) No pen is a pencil. (II) All pencils are stationery items.

From (II), all pencils are stationery. From (I), pens and pencils are completely disjoint. Therefore the pencil-subset of stationery has no pens, meaning **some stationery items (the pencils) are not pens** — **Conclusion II follows**.



Conclusion I ("No pen is a stationery item") does not follow because stationery could include items other than pencils, and those could be pens. There is no information to rule this out.

Only Conclusion II follows.

Answer: (D)

[Go Back to Q 3](#)

Q4.

Solution

Given: (I) All doctors are engineers. (II) All engineers are graduates.

By transitivity: All doctors $\subseteq$ engineers $\subseteq$ graduates.

- **Conclusion I:** All doctors are graduates. **TRUE** (direct chain).
- **Conclusion II:** Some graduates are doctors. Since all doctors are graduates and doctors form a non-empty set, there exist graduates who are doctors. **TRUE**.

Both Conclusions I and II follow.

Answer: (A)

[Go Back to Q 4](#)

Q5.

Solution

The coding rule is: each letter is shifted **forward by 2** in the alphabet.

Letter	Position	Coded (+2)
C	3	E
A	1	C
L	12	N
M	13	O

So CALM $\rightarrow$ ECNO ✓.

Applying the same rule to DARK:



Letter	Position	Coded (+2)
D	4	F
A	1	C
R	18	T
K	11	M

DARK $\rightarrow$ FCTM.

Answer: (B)

[Go Back to Q 5](#)

Q6.

Solution

- Q is the sister of R $\Rightarrow$ Q and R are siblings.
- R is the mother of S $\Rightarrow$ S is R's child.
- P is the son of Q $\Rightarrow$ P is Q's child.
- Since Q is R's sibling and R is S's mother, Q is S's **maternal aunt**.
- P (Q's son) and S (R's child) share the aunt–nephew/niece relationship one level up, making them **cousins**.

P is the Cousin of S.

Answer: (C)

[Go Back to Q 6](#)

Q7.

Solution

- Ravi's brother $\rightarrow$ they share the same father.
- Ravi's brother's father = Ravi's **own father**.
- Ravi's father's wife = Ravi's **mother**.

Therefore, Priya is Ravi's **Mother**.

Answer: (D)

[Go Back to Q 7](#)



Q8.

Solution

The series is: 2, 4, 8, 16, 32, ?

Each term is obtained by **multiplying the previous term by 2** (geometric progression with common ratio 2).

$$32 \times 2 = 64$$

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

Q9.

Solution

1. Rahul starts at his house and walks **5 km East**.
2. He turns **left** (now facing North) and walks **3 km North**.
3. He turns **left** again (now facing West) and walks **5 km West**.

Net East–West displacement: 5 km East – 5 km West = 0.

Net North–South displacement: 3 km North.

The straight-line distance from his house = $\sqrt{0^2 + 3^2} = 3$ km.

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

Q10.

Solution

The analogy relates a **country** to its **official currency**.

- India's official currency is the **Rupee**.
- Japan's official currency is the **Yen**.

India : Rupee :: Japan : **Yen**.

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

Q11.

Solution

Given: (I) Some cats are dogs. (II) Some dogs are black.

- **Conclusion I** (Some cats are black): The cats that overlap with dogs and the dogs that are black may be entirely different subsets. No definite link can be established. **Does not follow.**
- **Conclusion II** (All black things are dogs): This is a universal statement not supported by the given particular statements. There could be black things that are not dogs. **Does not follow.**

Neither Conclusion I nor Conclusion II follows.

Answer: (D)

[Go Back to Q 11](#)

Q12.

Solution

The pattern is: the code equals the **alphabetical position of the first letter** of the word.

Word	First Letter	Position (Code)
KICK	K	11
LICK	L	12
MICE	M	13
NICE	N	14

NICE = 14.

Answer: (A)

[Go Back to Q 12](#)

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