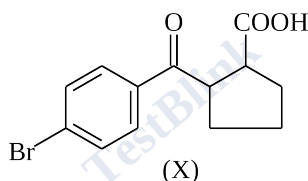


JEE MAIN ISOMERISM — CHIRAL CARBON AND BASIC CONDITIONS FOR OPTICAL ISOMERISM — PYQS

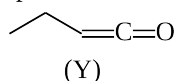
Max. Marks: 16
Questions: 4

Section A (MCQ) — 3 questions

- Q.1** **Statement-I:** Compound (X), shown below, dissolves in NaHCO_3 solution and has two chiral carbon atoms



Statement-II: Compound (Y), shown below, has two carbons with sp^3 hybridization, one carbon with sp^2 and one carbon with sp hybridization



In the light of the above statements, choose the **correct** answer from the options given below :

[JEE Main 2026 (Online) 21st January Evening Shift]

- (1) Statement-I is true but Statement-II is false
- (2) Both Statement-I and Statement-II are true
- (3) Both Statement-I and Statement-II are false
- (4) Statement-I is false but Statement-II is true

Scan or tap for the full solution



- Q.2** Given below are four compounds :

- (a) n-propyl chloride
- (b) isopropyl chloride
- (c) sec-butyl chloride
- (d) neopentyl chloride

Percentage of carbon in the one which exhibits optical isomerism is :

[JEE Main 2026 (Online) 21st January Evening Shift]

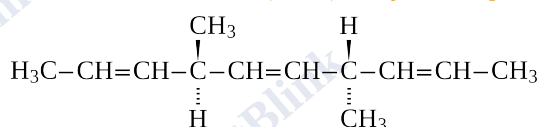
- (1) 46
- (2) 40
- (3) 52
- (4) 56

Scan or tap for the full solution



- Q.3** The number of optically active products obtained from the complete ozonolysis of the given compound is :

[JEE Main 2025 (Online) 7th April Evening Shift]



- (1) 4
- (2) 0
- (3) 2
- (4) 1

Scan or tap for the full solution



Section B (Numerical) — 1 question

- Q.4** Consider all the structural isomers with molecular formula $\text{C}_5\text{H}_{11}\text{Br}$ are separately treated with $\text{KOH}(\text{aq})$ to give respective substitution products, without any rearrangement. The number of products which can exhibit optical isomerism from these is _____.

[JEE Main 2026 (Online) 23rd January Morning Shift]

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ANSWER KEY

Section A (MCQ) — 3 questions

Ques.	1	2	3								
Ans.	2	3	2								

Section B (Numerical) — 1 question

Ques.	4										
Ans.	3										