

PYQSide

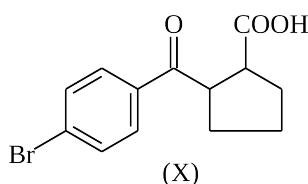
JEE MAIN ISOMERISM — CHIRAL CARBON AND BASIC CONDITIONS FOR OPTICAL ISOMERISM — PYQS

Max. Marks: 16

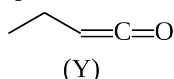
Questions: 4

Section A (MCQ)

- 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]

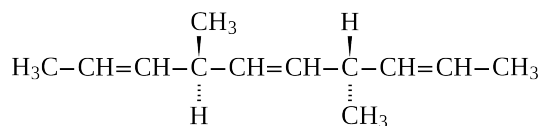
- (1) 46 (2) 40 (3) 52 (4) 56

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- 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

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Section B (Numerical)

- Q.4** Consider all the structural isomers with molecular formula $\text{C}_5\text{H}_{11}\text{Br}$ are separately treated with KOH(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)

Ques.	1	2	3								
Ans.	2	3	2								

Section B (Numerical)

Ques.	4										
Ans.	3										