

JEE MAIN ALDEHYDES, KETONES AND CARBOXYLIC ACIDS — NUCLEOPHILIC ADDITION REACTIONS OF ALDEHYDES AND KETONES — PYQS

Max. Marks: 12

Questions: 3

Section A (MCQ) — 2 questions

Q.1 Given below are two statements:

Statement-I: The condensation reaction between $\text{CH}_3\text{-CH=O}$ and $\text{H}_2\text{N-NH-C(=O)-NH}_2$ under optimum

pH will produce $\text{CH}_3\text{-CH=N-C(=O)-N-NH}_2$

Statement-II: The molecule, $\text{Ph-CH(OH-CH}_3\text{)-O-CH}_3$ will generate Ph-CH=O in the presence of dilute acid.

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

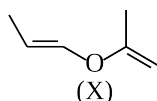
[JEE Main 2026 (Online) 5th April Evening Shift]

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

Scan or tap for the
full solution



Q.2 A molecule (X) with following structure under mild acidic condition is hydrolysed to produce (Y) and (Z). Identify the correct statements about (Y) and (Z).



- A. Both (Y) and (Z) have same molar mass.
- B. (Y) and (Z) can be distinguished from each other by NaHCO_3 .
- C. (Y) and (Z) react with HCN with same rates.
- D. (Y) and (Z) undergo addition reaction with 2,4-DNP.

Choose the **correct** answer from the options given below :

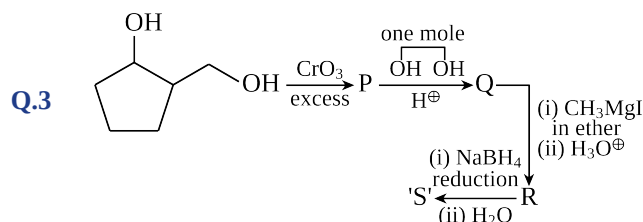
[JEE Main 2026 (Online) 2nd April Evening Shift]

- (1) A, B and C Only
- (2) B and C Only
- (3) C and D Only
- (4) A and D Only

Scan or tap for the
full solution



Section B (Numerical) — 1 question



0.1 mole of compound 'S' will weigh _____ g.
(Given molar mass in g mol^{-1} C : 12, H : 1, O : 16)

[JEE Main 2025 (Online) 29th January Morning Shift]

Scan or tap for the
full solution



ANSWER KEY

Section A (MCQ) — 2 questions

Ques.	1	2								
Ans.	4	4								

Section B (Numerical) — 1 question

Ques.	3									
Ans.	13									