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JEE MAIN ALDEHYDES, KETONES AND CARBOXYLIC ACIDS — OXIDATION OF METHYL KETONES (HALOFORM REACTION) — PYQS

Max. Marks: 20 **Questions:** 5

Section A (MCQ) — 5 questions

Q.1 Which of the following statements are TRUE about Haloform reaction?

A. Sodium hypochlorite reacts with KI to give KOI.

B. KOI is a reducing agent.

C. α, β-unsaturated methyl ketone $\left(CH_3-CH=CH-\overset{\overset{O}{\|}}{C}-CH_3\right)$ will give iodoform reaction.

D. Isopropyl alcohol will not give iodoform test.

E. Methanoic acid will give positive iodoform test.

Choose the correct answer from the options given below :

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

(1) A, B & C Only (2) A, C & E Only

(3) B, D & E Only (4) A & C Only

Scan or tap for the full solution

Q.2 Iodoform test can differentiate between

A. Methanol and Ethanol

B. CH_3COOH and CH_3CH_2COOH

C. Cyclohexene and cyclohexanone

D. Diethyl ether and Pentan-3-one

E. Anisole and acetone

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

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

(1) A, B & E Only (2) A & D Only

(3) A & E Only (4) B, C & E Only

Scan or tap for the full solution

Q.3 An organic compound "P" of molecular formula $C_6H_{12}O_3$ gives positive iodoform test but negative Tollens' test. When "P" is treated with dilute acid, it produces "Q". "Q" gives positive Tollens' test and also iodoform test. The structure of "P" is :

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

(1) $H-\overset{\overset{O}{\|}}{C}-CH_2-CH_2-\underset{\underset{OCH_3}{|}}{CH}-OCH_3$

(2) $CH_3-\underset{\underset{O}{\|}}{C}-\underset{\underset{OCH_3}{|}}{CH}-\underset{\underset{OCH_3}{|}}{CH_2}$

(3) $CH_3-\underset{\underset{O}{\|}}{C}-CH_2-\underset{\underset{OCH_3}{|}}{CH}-OCH_3$

(4) $CH_3-\overset{\overset{O}{\|}}{C}-\underset{\underset{OCH_3}{|}}{\overset{\overset{OCH_3}{|}}{C}}-CH_3$

Scan or tap for the full solution

Q.4 Which among the following compounds give yellow solid when reacted with NaOI/NaOH?

A. $CH_3-\overset{\overset{OH}{|}}{CH}-C_2H_5$

B. $CH_3-CH_2-CH_2-OH$

C. $CH_3-\overset{\overset{O}{\|}}{C}-C_2H_5$

D. $CH_3-\overset{\overset{O}{\|}}{C}-OH$

E. $CH_3-CH_2-\overset{\overset{O}{\|}}{C}-H$

Choose the correct answer from the options given below : [JEE Main 2025 (Online) 4th April Evening Shift]

(1) (A) and (C) Only

(2) (C) and (D) Only

(3) (B), (C) and (E) Only

(4) (A), (C) and (D) Only

Scan or tap for the full solution

Q.5 Number of molecules from below which cannot give iodoform reaction is :

Ethanol, Isopropyl alcohol, Bromoacetone, 2-Butanol, 2-Butanone, Butanal, 2-Pentanone, 3-Pentanone, Pentanal and 3-Pentanol.

[JEE Main 2025 (Online) 3rd April Morning Shift]

(1) 4 (2) 3 (3) 5 (4) 2

Scan or tap for the full solution

ANSWER KEY

Ques.	1	2	3	4	5						
Ans.	**4**	**3**	**3**	**1**	**1**						