Q1 - 24 June - Shift 1

Two statements are given below :

Statement I: The melting point of monocarboxylic acid with even number of carbon atoms is higher than that of with odd number of carbon atoms acid immediately below and above it in the series.

Statement II : The solubility of monocarboxylic acids in water decreases with increase in molar mass.

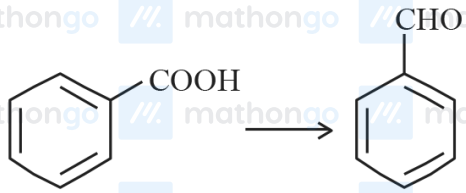
Choose the most appropriate option:

(A) Both Statement I and Statement II are correct.
(B) Both Statement I and Statement II are incorrect.
(C) Statement I is correct but Statement II is incorrect.
(D) Statement I is incorrect but Statement II is correct.

Space for your notes:

Q2 - 26 June - Shift 2

The reagent, from the following, which converts benzoic acid to benzaldehyde in one step is



(1) $LiAlH_4$ (2) $KMnO_4$

(3) MnO (4) $NaBH_4$

Space for your notes:

Q3 - 27 June - Shift 2

Decarboxylation of all six possible forms of diaminobenzoic acids $C_6H_3(NH_2)_2COOH$ yields three products A, B and C. Three acids give a product 'A', two acids gives a product 'B' and one acid give a product 'C'. The melting point of product 'C' is

(A) 63°C (B) 90°C

(C) 104°C (D) 142°C

Space for your notes:

Q4 - 29 June - Shift 1

Given below are two statements :

Statement I : The esterification of carboxylic acid with an alcohol is a nucleophilic acyl substitution.

Statement II : Electron withdrawing groups in the carboxylic acid will increase the rate of esterification reaction.

Choose the **most appropriate** option :

(A) Both **Statement I** and **Statement II** are correct.

(B) Both **Statement I** and **Statement II** are incorrect.

(C) **Statement I** is correct but **Statement II** is incorrect.

(D) **Statement I** is incorrect but **Statement II** is correct.

Space for your notes:

Answer Key

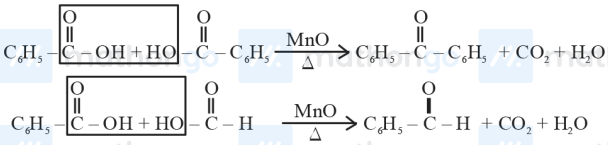
Q1 (A) **Q2** (C) **Q3** (D) **Q4** (A)

Q1 (A)

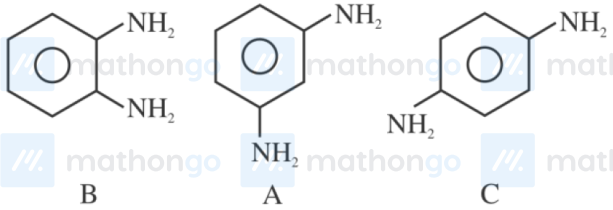
I . Better packing efficiency of monocarboxylic acids with even number of carbon atoms results in higher M.P

II. As molar mass increases hydrophobic part size increase hence solubility decreases.

Q2 (C)



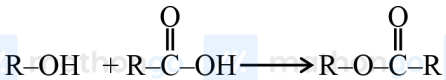
Q3 (D)



B A C

M.P. 142°C

Q4 (A)



nucleophilic acyl substitution

electron with drawing group on carboxylic acid will increase the rate of esterification