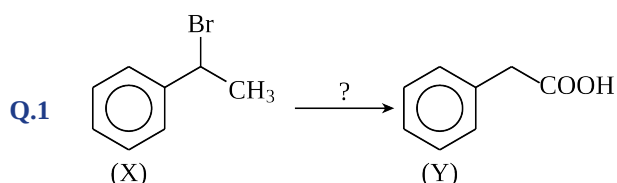


JEE MAIN ALDEHYDES, KETONES AND CARBOXYLIC ACIDS — PREPARATION OF CARBOXYLIC ACIDS — PYQS

Max. Marks: 24

Questions: 6

Section A (MCQ) — 4 questions

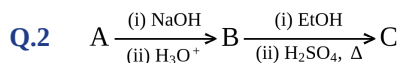


The correct sequence of reagents for the above conversion of X to Y is :

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

- (1) (i) NaOH(aq), (ii) Jones reagent, (iii) H_3O^+
- (2) (i) NaOEt, (ii) $\text{B}_2\text{H}_6/\text{H}_2\text{O}_2$, (iii) Jones reagent
- (3) (i) Jones reagent, (ii) NaOEt, (iii) Hot KMnO_4/KOH
- (4) (i) $\text{B}_2\text{H}_6/\text{H}_2\text{O}_2$, (ii) NaOEt, (iii) Jones reagent

Scan or tap for the full solution



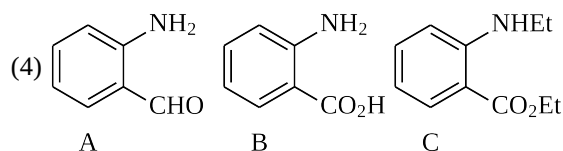
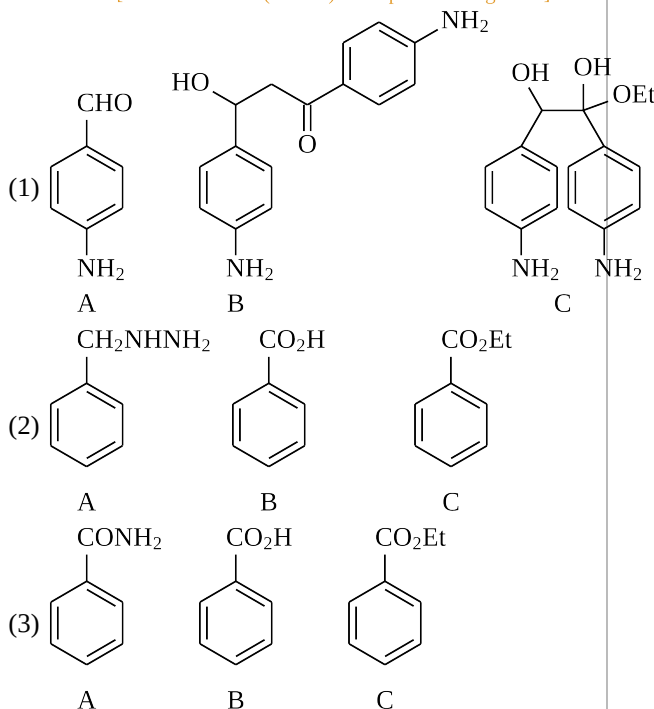
'A' shows positive Lassaigne's test for N and its molar mass is 121.

'B' gives effervescence with aq NaHCO_3 .

'C' gives fruity smell.

Identify A, B and C from the following.

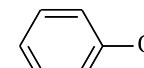
[JEE Main 2025 (Online) 8th April Evening Shift]



Scan or tap for the full solution



Q.3 Consider the following reactions. From these reactions which reaction will give carboxylic acid as a major product?

- A. $\text{R}-\text{C}\equiv\text{N} \xrightarrow[\text{mild condition}]{\text{H}^+/\text{H}_2\text{O}}$
- B. $\text{R}-\text{MgX} \xrightarrow[\text{(ii) } \text{H}_3\text{O}^+]{\text{(i) } \text{CO}_2}$
- C. $\text{R}-\text{C}\equiv\text{N} \xrightarrow[\text{(ii) } \text{H}_3\text{O}^+]{\text{(i) } \text{SnCl}_2/\text{HCl}}$
- D. $\text{R}-\text{CH}_2-\text{OH} \xrightarrow{\text{PCC}}$
- E.  $\xrightarrow[\text{(ii) } \text{Br}_2 \text{ water}]{\text{(i) } \text{H}_2/\text{Pd}-\text{BaSO}_4}$

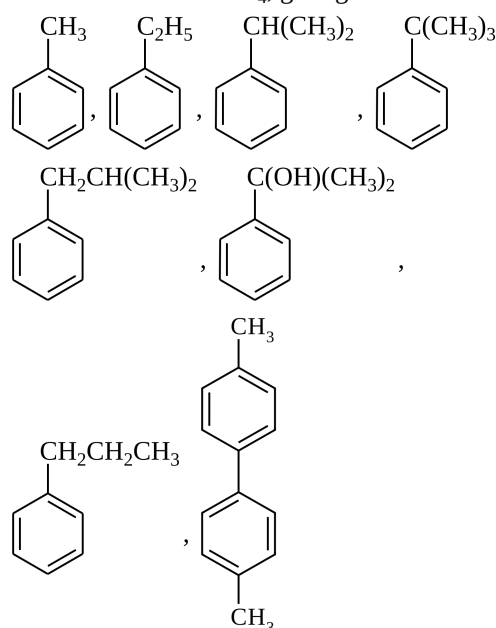
Choose the correct answer from the options given below: [JEE Main 2025 (Online) 2nd April Evening Shift]

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

Scan or tap for the full solution



Q.4 The total number of compounds from below when treated with hot KMnO_4 , giving benzoic acid is:



[JEE Main 2025 (Online) 28th January Evening Shift]

(1) 4

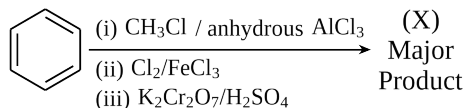
(2) 3

(3) 5

(4) 6

Scan or tap for the
full solution**Section B (Numerical) — 2 questions**

Q.5 Consider the following sequence of reactions to give the major product (X)



P g of the major product (X) formed is reacted with NaHCO_3 solution to liberate a gas which occupied 11.2 dm^3 at STP.

P = _____ g.

(Given molar mass in g mol^{-1} H : 1, C : 12, O : 16, Cl : 35.5)

[JEE Main 2026 (Online) 4th April Morning Shift]

Scan or tap for the
full solution

Q.6 Grignard reagent RMgBr (P) reacts with water and forms a gas (Q). One gram of Q occupies 1.4 dm^3 at STP. (P) on reaction with dry ice in dry ether followed by H_3O^+ forms a compound (Z). 0.1 mole of (Z) will weigh _____ g. (Nearest integer)

[JEE Main 2026 (Online) 24th January Evening Shift]

Scan or tap for the
full solution**ANSWER KEY****Section A (MCQ) — 4 questions**

Ques.	1	2	3	4						
Ans.	2	3	4	3						

Section B (Numerical) — 2 questions

Ques.	5	6								
Ans.	78	6								