

PART 1 - CHEMISTRY

Topic : Amines

SECTION-A : (Maximum Marks : 4)

- This section contains **ONE** question.
- Each question has **TWO** lists: **List-I** and **List-II**.
- Four options are given representing matching of elements from List-I and List-II. **ONLY ONE** of these four options corresponds to a correct matching.
- For each question, choose the option corresponding to the correct answer.
- Answer to each question will be evaluated according to the following marking scheme :

Full Marks : +4 If **ONLY** the correct option is chosen;

Zero Marks : 0 If none of the options is chosen (i.e. the question is unanswered);

Negative Marks : -1 In all other cases.

1. The major products obtained from the reactions in **List-II** are the reactants for the named reactions mentioned in **List-I**. Match each entry in **List-I** with the appropriate entry in **List-II** and choose the correct option.

[JEE Advanced 2025 Paper 1]

List-I		List-II	
P.	Stephen reaction	1.	Toluene $\xrightarrow{\text{(i) CrO}_2\text{Cl}_2/\text{CS}_2; \text{(ii) H}_3\text{O}^+}$
Q.	Sandmeyer reaction	2.	Benzoic acid $\xrightarrow[\text{(ii) NH}_3; \text{(iii) P}_4\text{O}_{10}, \Delta]{\text{(i) PCl}_5}$
R.	Hoffmann bromamide degradation reaction	3.	Nitrobenzene $\xrightarrow{\text{(i) Fe, HCl; (ii) HCl, NaNO}_2 \text{ (273–278 K), H}_2\text{O}}$
S.	Cannizzaro reaction	4.	Toluene $\xrightarrow{\text{(i) Cl}_2/h\nu, \text{H}_2\text{O}; \text{(ii) Tollen's reagent; (iii) SO}_2\text{Cl}_2; \text{(iv) NH}_3}$
		5.	Aniline $\xrightarrow{\text{(i) (CH}_3\text{CO)}_2\text{O, Pyridine; (ii) HNO}_3, \text{H}_2\text{SO}_4, 288 \text{ K; (iii) aq. NaOH}}$

(A) P → 2; Q → 4; R → 1; S → 3

(B) P → 2; Q → 3; R → 4; S → 1

(C) P → 5; Q → 3; R → 4; S → 2

(D) P → 5; Q → 4; R → 2; S → 1

Scan or tap for the full solution



Space for Rough Work

Test Pattern : **JEE (Advanced)**

ANSWER KEY

[illegible]