

PART 1 - CHEMISTRY**Topic :** Principles related to practical chemistry**SECTION-1 : (Maximum Marks : 3)**

- This section contains **ONE** question.
- Each question has **FOUR** options (A), (B), (C) and (D). **ONLY ONE** of these four options is the correct answer.
- 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 : +3 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. During sodium nitroprusside test of sulphide ion in an aqueous solution, one of the ligands coordinated to the metal ion is converted to [JEE Advanced 2025 Paper 2]
- (A) NOS^- (B) SCN^- (C) SNO^- (D) NCS^-

Scan or tap for the full solution

**Space for Rough Work**

SECTION-2 : (Maximum Marks : 8)

- This section contains **TWO** questions.
- 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.

2. The correct match of the group reagents in **List-I** for precipitating the metal ion given in **List-II** from solutions, is [JEE Advanced 2025 Paper 1]

List-I		List-II	
P.	Passing H_2S in the presence of NH_4OH	1.	Cu^{2+}
Q.	$(\text{NH}_4)_2\text{CO}_3$ in the presence of NH_4OH	2.	Al^{3+}
R.	NH_4OH in the presence of NH_4Cl	3.	Mn^{2+}
S.	Passing H_2S in the presence of dilute HCl	4.	Ba^{2+}
		5.	Mg^{2+}

(A) $\text{P} \rightarrow 3; \text{Q} \rightarrow 4; \text{R} \rightarrow 2; \text{S} \rightarrow 1$ (B) $\text{P} \rightarrow 4; \text{Q} \rightarrow 2; \text{R} \rightarrow 3; \text{S} \rightarrow 1$ (C) $\text{P} \rightarrow 3; \text{Q} \rightarrow 4; \text{R} \rightarrow 1; \text{S} \rightarrow 5$ (D) $\text{P} \rightarrow 5; \text{Q} \rightarrow 3; \text{R} \rightarrow 2; \text{S} \rightarrow 4$

Scan or tap for the full solution

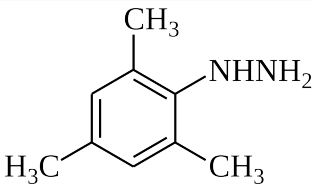


3. Match the compounds in **List-I** with the appropriate observations in **List-II** and choose the correct option.

[JEE Advanced 2025 Paper 1]

List-I		List-II	
P.		1.	Reaction with phenyl diazonium salt gives yellow dye.
Q.		2.	Reaction with ninhydrin gives purple color and it also reacts with FeCl_3 to give violet color.
R.		3.	Reaction with glucose will give corresponding hydrazone.

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List-I		List-II	
S.		4.	Lassaigne extract of the compound treated with dilute HCl followed by addition of aqueous FeCl_3 gives blood red color.
		5.	After complete hydrolysis, it will give ninhydrin test and it DOES NOT give positive phthalein dye test.

(A) P $\rightarrow$ 1; Q $\rightarrow$ 5; R $\rightarrow$ 4; S $\rightarrow$ 2

(C) P $\rightarrow$ 5; Q $\rightarrow$ 2; R $\rightarrow$ 1; S $\rightarrow$ 4

(B) P $\rightarrow$ 2; Q $\rightarrow$ 5; R $\rightarrow$ 1; S $\rightarrow$ 3

(D) P $\rightarrow$ 2; Q $\rightarrow$ 1; R $\rightarrow$ 5; S $\rightarrow$ 3

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Test Pattern : **JEE (Advanced)**

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