

# PYQSide

## JEE MAIN PRINCIPLES RELATED TO PRACTICAL CHEMISTRY — DETECTION OF FUNCTIONAL GROUPS — PYQS

Max. Marks: 16

Questions: 4

### Section A (MCQ)

**Q.1** Match the **LIST-I** with **LIST-II**

| List-I<br>Compound |  | List-II<br>Test |                         |
|--------------------|--|-----------------|-------------------------|
| A.                 |  | I.              | Hinsberg's reagent test |
| B.                 |  | II.             | Phthalein dye test      |
| C.                 |  | III.            | Lucas test              |
| D.                 |  | IV.             | Tollen's test           |

Choose the correct answer from the options given below: [JEE Main 2026 (Online) 4th April Evening Shift]

- (1) A-III, B-I, C-IV, D-II (2) A-III, B-IV, C-I, D-II  
(3) A-I, B-III, C-II, D-IV (4) A-I, B-II, C-III, D-IV

Scan or tap for the full solution

**Q.2** Match **List - I** with **List - II**.

[JEE Main 2026 (Online) 2nd April Morning Shift]

| Mixture of Compounds |                              | Reagent used to distinguish |                                      |
|----------------------|------------------------------|-----------------------------|--------------------------------------|
| A.                   | Diethyl amine + Ethyl amine  | I.                          | Bromine water                        |
| B.                   | Acetaldehyde + Acetone       | II.                         | $\text{CHCl}_3 + \text{KOH}, \Delta$ |
| C.                   | Ethanol + Phenol             | III.                        | Neutral $\text{FeCl}_3$              |
| D.                   | Benzoic acid + Cinnamic acid | IV.                         | Ammoniacal silver nitrate            |

- (1) A-IV, B-II, C-I, D-III (2) A-IV, B-II, C-III, D-I  
(3) A-II, B-IV, C-I, D-III (4) A-II, B-IV, C-III, D-I

Scan or tap for the full solution

**Q.3** Match **List - I** with **List - II**.

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

| Functional group (detection) |                                               | Change observed during detection |                          |
|------------------------------|-----------------------------------------------|----------------------------------|--------------------------|
| A.                           | Unsaturation (Baeyer's test)                  | I.                               | Red colour appears       |
| B.                           | Alcoholic group (Ceric ammonium nitrate test) | II.                              | Silver mirror appears    |
| C.                           | Aldehyde group (Tollens' reagent)             | III.                             | Violet colour appears    |
| D.                           | Phenolic group ( $\text{FeCl}_3$ test)        | IV.                              | Discharge of pink colour |

- (1) A-IV, B-I, C-II, D-III (2) A-III, B-IV, C-I, D-II  
(3) A-III, B-IV, C-II, D-I (4) A-IV, B-III, C-II, D-I

Scan or tap for the full solution

**Q.4** Match the **LIST-I** with **LIST-II**

| LIST-I (Reagent) |                             | LIST-II (Functional Group detected) |                          |
|------------------|-----------------------------|-------------------------------------|--------------------------|
| A.               | Sodium bicarbonate solution | I.                                  | double bond/unsaturation |
| B.               | Neutral ferric chloride     | II.                                 | carboxylic acid          |
| C.               | Ceric ammonium nitrate      | III.                                | phenolic -OH             |
| D.               | Alkaline $\text{KMnO}_4$    | IV.                                 | alcoholic -OH            |

Choose the correct answer from the options given below: [JEE Main 2025 (Online) 8th April Evening Shift]

- (1) A-II, B-III, C-I, D-IV (2) A-II, B-IV, C-III, D-I  
(3) A-III, B-II, C-IV, D-I (4) A-II, B-III, C-IV, D-I

Scan or tap for the full solution

**ANSWER KEY**

|              |   |   |   |   |  |  |  |  |  |  |  |
|--------------|---|---|---|---|--|--|--|--|--|--|--|
| <b>Ques.</b> | 1 | 2 | 3 | 4 |  |  |  |  |  |  |  |
| <b>Ans.</b>  | 1 | 4 | 1 | 4 |  |  |  |  |  |  |  |