

1. Formation of which complex, among the following, is not a confirmatory test of Pb^{2+} ions

[2023 (06 Apr Shift 2)]

- (1) Lead sulphate
- (2) Lead nitrate
- (3) Lead chromate
- (4) Lead iodide

2. In the wet tests for detection of various cations by precipitation, Ba^{2+} cations are detected by obtaining precipitate of

[2023 (13 Apr Shift 2)]

- (1) $Ba(ox)$: Barium oxalate
- (2) $BaCO_3$
- (3) $Ba(OAc)_2$
- (4) $BaSO_4$

ANSWER KEYS

1. (2)

2. (2)

1. (2)

On adding H_2SO_4 to Pb^{2+} , white precipitate of lead sulphate, PbSO_4 is formed. By adding potassium iodide solution to Pb^{2+} - Yellow precipitate of lead iodide is formed. The ppt dissolves in boiling water and on cooling recrystallises.

By adding potassium chromate solution to Pb^{2+} - Yellow precipitate of lead chromate is formed. But lead nitrate is a water soluble compound.

2. (2)

Ba^{2+} belongs to Vth Group and hence they are precipitated with CO_3^{2-} to give ppt of BaCO_3 . In Wet tests for cations, $(\text{NH}_4)_2\text{CO}_3$ is used as a group reagent

for fifth group cations ($\text{Ba}^{2+}, \text{Ca}^{2+}, \text{Sr}^{2+}$).

