Identify the Functional Group Present In the Given Organic Compound

Experiment	*Observations*	*Inference*
1. **Test for unsaturation** Dissolved 0.2 ml of organic compound in 2 ml CCl_4. Then added bromine-water dropwise.	Brown colour of bromine not discharged.	No unsaturation is present.
2. **Test for carboxylic group** Added a pinch of $NaHCO_3$ to 0.2 ml of organic compound in a test-tube.	No effervescence.	Carboxylic group is absent.
3. **Test for phenolic group** Added 0.2 ml of organic compound to 2–3 ml neutral $FeCl_3$ solution in a test-tube.	No green or violet colour obtained.	Phenolic group is absent.
4. **Test for alcoholic group** Added a small piece of sodium to 1 ml of the given liquid in a dry test-tube.	No effervescence.	Alcoholic group is absent.
5. **Test for carbonyl group** Shook 0.2 ml of organic compound with 2–3 ml of 2, 3-dinitrophenyl hydrazine in a test-tube.	Orange-yellow ppt. formed.	Carbonyl group is present. May be an aldehyde or a ketone.
6. **Test for aldehydic group** Warmed 1 ml of organic compound with 1 ml of Tollen's reagent in a test-tube over a water bath.	Silver mirror formed on inner side of test-tube.	Aldehyde is present.

Experiment	*Observations*	*Inference*
7. **Test for amine group** To a small amount of organic liquid in test-tube, added 1 ml conc. of HCl and a few drops of $CHCl_3$. Then, added 2 ml of alc. KOH solution and warmed test-tube.	No offensive smelling gas evolved.	Amino group absent.

Result

The given organic compound contains aldehydic $\left(\begin{matrix}-C-H\\ \|\\ O\end{matrix}\right)$ functional group.