



LAB ACTIVITIES OF CHEMISTRY (2024-25) XII

Month	Practical/Activity to be conducted
April	Tests for the functional groups present in organic compounds 1. To test the presence of unsaturated, alcoholic, phenolic, aldehydic, ketonic, carboxylic and amino (Primary) groups.
May	Quantitative Estimation 2. To study in detail, the use of a mechanical balance/electronic balance. 3. To prepare a standard solution of oxalic acid. 4. To determine the strength of a given solution of KMnO_4 by titrating it against a standard solution of oxalic acid. 5. To prepare a standard solution of ferrous ammonium sulphate. 6. To determine the strength of a given solution of KMnO_4 by titrating it against standard ferrous ammonium sulphate.
July	Qualitative Analysis 7. To determine one cation in a given salt. Cations- Pb^{2+} , Cu^{2+} , As^{3+} , Al^{3+} , Fe^{3+} , Mn^{2+} , Ni^{2+} , Zn^{2+} , Co^{2+} , Ca^{2+} , Sr^{2+} , Ba^{2+} , Mg^{2+} , NH_4^+ .
August	Qualitative Analysis 7. To determine one anion in a given salt. Anions – CO_3^{2-} , S^{2-} , NO_2^- , SO_3^{2-} , SO_4^{2-} , NO_3^- , Cl^- , Br^- , I^- , PO_4^{3-} , CH_3COO^- .
October	Preparation of Inorganic Compounds 8. To prepare double salt of ferrous ammonium sulphate or potash alum. 9. To prepare a solution of potassium ferric oxalate.
November	Electrochemistry 10. To study the variation of cell potential in $\text{Zn}/\text{Zn}^{2+} \parallel \text{Cu}^{2+}/\text{Cu}$ with change in the concentration of electrolytes (CuSO_4 or ZnSO_4) at room temperature. Chemical Kinetics 11. To study reaction rates of reaction between potassium iodate (KIO_3) and sodium sulphite (Na_2SO_3) using starch solution as an indicator (clock reaction).
December	Preparation of Organic Compounds 12. To prepare a solution of aniline.