

Course Code	Course Name	Credits
26CH155	PHYSICAL CHEMISTRY LAB	02

Objective

This practical course on physical chemistry intends to provide the students with scientific skills in conductometric and potentiometric experiments.

1. Determination of partition co-efficient of Iodine between benzene and water
2. Determination of enthalpy of hydration of copper sulphate.
3. Determination of PH of buffer solution potentiometrically using quinhydrone electrode.
4. Construction of the phase diagram of a binary system (simple eutectic) using cooling curves.
5. Determination of molecular weight-Rast's macro method.
6. Determination of the relative and absolute viscosity of a liquid or dilute solution using an Ostwald's viscometer.
7. Conductometric titration of a strong acid against a strong base.
8. Potentiometric titration of a strong acid against a strong base.
9. Redox titrations (MnO_4^- vs I^- / $\text{Cr}_2\text{O}_7^{2-}$ -vs Fe^{2+}) by potentiometry.
10. Determination of pKa of acetic acid using pH Meter.

Students are required to perform and record at least eight experiments in the laboratory manual as part of the course requirements.

