

# K. S. SCHOOL OF ENGINEERING AND MANAGEMENT

## Department of Science & Humanities

### Engineering Chemistry Laboratory

#### **LIST OF EXPERIMENTS**

##### PART-A

1. Potentiometric estimation of FAS using standard  $K_2Cr_2O_7$  solution.
2. Colorimetric estimation of Copper.
3. Conductometric estimation of an Acid mixture using standard NaOH solution.
4. Flame Photometric estimation of Sodium and Potassium in the given sample of Water.
5. Determination of pKa of a weak acid using pH Meter.
6. Determination of Viscosity co-efficient of a given liquid using Ostwald's Viscometer.

##### PART-B

1. Determination of Total Hardness of a sample of Water using Disodium salt of EDTA.
2. Determination of CaO in the given sample of Cement by Rapid EDTA method.
3. Determination of Percentage of Copper in Brass using standard Sodium thiosulphate solution.
4. Determination of Iron in the given sample of Haematite ore solution using Potassium dichromate Crystals by external indicator method.
5. Determination of COD of the given Industrial Waste water sample.
6. Estimation of Percentage of available chlorine in the given sample of Bleaching power.



# K. S. SCHOOL OF ENGINEERING AND MANAGEMENT

## Department of Science & Humanities

### Engineering Physics Laboratory

#### **LIST OF EXPERIMENTS**

- Determine wavelength of semiconductor laser using Laser diffraction.
- Estimation of Fermi Energy of copper.
- Determination of spring constants in Series and Parallel combination.
- Study of input and output Transistor characteristics and hence calculate input resistance, output resistance and amplification factor.
- Calculation of Dielectric constant by RC charging and discharging.
- Study Series and Parallel LCR resonance and hence calculate inductance, band width and quality factor using series LCR Resonance.
- $n$  and  $I$  by Torsional pendulum.
- Radius of curvature of plano-convex lens using Newton's rings.
- Determine Acceptance angle and Numerical aperture of an optical fibre.
- Draw photodiode characteristics and calculate power responsivity.
- Young's modulus of a beam by Single Cantilever experiment.
- Determination of Magnetic field intensity along the axis of a circular coil carrying current by deflection method.

