

## SEMESTER-I

### M.Sc. (Industrial Chemistry)

#### Practicals

#### Paper S-1055

Duration 8 hrs.(One day)

M.

M.:200

Distribution of Marks:

Experiment - I-Major exercise A =40 Marks

Experiment - II-Major exercise B =40 Marks

Experiment - III-Minor exercise A =20 Marks

Experiment - IV-Minor exercise B =20 Marks

Viva -voice =15 marks

Record =15 marks

Seminar and Project Report =50 marks

#### Analysis of Minerals/Ores/Alloys

1. Determination of CaO & MgO, Al<sub>2</sub>O<sub>3</sub> and Silica in supplied mixture - 2
2. Analysis of Brass (Cu & Zn contents)/ Solder(Sn & Pb contents) - 2
3. Analysis of Wood's-2 Metals Bi/Cd/Pb

#### Organic estimations & Synthesis

- (1.) Glucose - 1
- (2.) Carbonyl - 1
- (3.) Two stage preparation (Yield, Crystallization, M.P. Determination, ) -2

#### Water analysis

- (4.) Total hardness of water - 1
- (5.) Alkalinity-OH<sup>-</sup> /CO<sub>3</sub><sup>2-</sup> /OH<sup>-</sup> +HCO<sub>3</sub><sup>-</sup> - 1
- (6.) Chloride contents -1

#### Physical Experiments

- (7.) Viscosity - 1
- (8.) Spectrophotometric determination of mixture of two compounds (KMnO<sub>4</sub> + K<sub>2</sub>Cr<sub>2</sub>O)-1
- (9.) Analysis of soil/water using AAS