

**Semester
IV
(Practica
I- A)**

Time: 6 Hrs.

M.M. 100 marks

- Identification of plastic (i) Preliminary test. (ii) Solubility test. (iii) Elemental analysis (test for heteroatom). (iv) final identification by chemical test
 - Specific identification test
 - (a) Plastic containing nitrogen (b) Plastic containing chlorine (c) Plastic containing fluorine (d) Plastic containing sulphur (e) Plastic not containing nitrogen, sulphur and halogens.
- High temperature resistant thermoplastics.
- Miscellaneous properties of plastics

Identification of rubber

- (v) Preliminary test. (vi) Solubility test. (vii) Elemental analysis.
- (viii) final identification by chemical test
 - Group 1- Rubber containing nitrogen
 - Group 2- Rubber containing chlorine
 - Group 3- Rubber containing bromine
 - Group 4- Rubber containing fluorine
 - Group 5- Rubber containing sulphur
 - Group 6- Rubber not containing nitrogen, halogen and sulphur
- Miscellaneous properties of rubber.
- Spectral analysis: Characterization of organic compounds in the basis of given Xerox copies of spectra (UV, IR, NMR and Mass)
- Thermal characterization: Study of polymer using TGA, DSC, and DSC on the basis of given data.

