

## SEMESTER-IV

### 1. Polymer Processing Management

Time: 3 Hrs.

M.M. 100 marks

Note: The paper will be divided into two sections.

**Section-A** M.C.Q.50 (10 from each section)

**Total-50 marks**

**Section-B:** Two questions are from each unit will be asked with internal choice and the candidate is required to attempt five questions.

**Total-50 marks**

#### Unit- I

**Rubber product manufacturing system:** The system concept, Prediction, Monitoring and control of process performance, Production organization

**Process control and Quality control:** The interaction of process control and quality control, Specifications, Process capability studies, Process monitoring, Process control, Quality control.

#### Unit-II

**Plant layout and operation methods:** General consideration, transport and storage in manufacture, Handling methods and operations at work stations, Planning and allocating space layout synthesis and evaluation, Installing and commissioning a layout.

#### Unit-III

**Company Philosophy, Organization and Strategy:** Philosophy, Company Organization, Market Research and Company Development.

**The economics of manufacturing operations:** The flow of cash through a company, Cost identification and analysis methods, Standard costs, Business plans and budgets, Budgetary control.

#### Unit-IV

**Production management:** Production planning, Purchasing and inventory control, implementing the production plan.

#### Unit-V

**Quality Management Systems:** Quality data, Quality audit, Quality costs, Quality policy, Quality objectives, Quality systems, Inspection, Certification and Accreditation. Basic concepts on ISO 9000, QS 9000, ISO 14000, TS 16949, EFQM model and TQM.

**Recommended Books:**

- 1 .Physical testing of rubbers: R. P. Brown.
2. Rubber Technology and Manufacturing: C.M. Blow.
3. Introduction of Polymer Sc. & Rubber Technology, Vol. I, Ed. By Dr. R. Mukhopadhyay.