## Third Year B. B. A.
## Paper- 1 Manufacturing and Materials Management
(Effective from June 1999)

**Section - I**

**1. Introduction :**                                                                                              **15%**

1. Production - Production Management :
   Meaning, Scope and importance, the responsibility of production manager.
2. Types of Manufacturing Systems :
   Intermittent and continuous - their features and comparison.
3. Plant location :
   - Factors governing plant location.
   - Rural v/s urban plant site.
   - State regulations on location.
4. Plant Layout :
   - Definition , objectives.
   - Factors influencing plant layout.
   - Types of layout, their concept, advantages, disadvantages, preference.
   - Tools and Techniques, procedure of layout.
5. Material Handling :
   Definition objectives, principles and policies, Function of materials Handling, Kinds and classes of equipments.

**2. Elements of Industrial Engineering :**                                                        **10%**

1. Work study : Definition and objectives :
   - Techniques of work study.
   - Basic procedure for work study.
2. Methods study : Definition and objectives :
   - Basic procedure for method study.
   - Recording method.
   - Method study charts : Flow process chart, man and material type, equipment type, multiactivity chart, SIMO chart.
   - Work measurement, objectives and techniques.
3. Time study : Equipments, procedure and elements :
   - Therbligs.
   - Performance Rating - system of rating.
   - Micro motion study.

**3. Production Planning and Control :**                                                           **10%**

1. Production Planning : Definition, objective and importance :
   - Planning related to types of manufacturing plant.
   - Consideration of machine loading as an important of production planning.
2. Production Control :
   - Definition , objectives and advantages.
   - Difference between production planning and production control.
   - Mechanism of production operation.

**1.** Routing : Definition objects and advantages, and procedure sequencing production operation.

**2.** Scheduling : Definition objects and advantages :
   - Difference between Routing and Scheduling.
   - Gantt Chart, CPM, PERT, line balance.
   - loading and scheduling.

**3.** Dispatching : Definition, objectives and function :

**4.** Follow up : Definition objectives and Procedure :
   - Techniques of production control for intermittent and Continuous manufacture system.

**4. Practical Problems on :**                                                                              **15%**

1. Preparation of man-machine chart, and commuting Cycle time percentage of machine utilization and time utilization.
2. Operation process Chart, Flow process chart, Flow diagram sequence of production operation (Assignment problems)
3. Preparation of Grant Chart and performance rating.
4. PERT, CPM, Line Balance.

**Section -II**
**Materials Management**

**1. Introduction :**                                                                                    **10%**
- Classification of Materials.
- Materials management - Definition, Scope and importance.
- Integrated Materials management concept need and advantages.
- Materials planning - definition, need factors affecting Materials planning.
- Techniques of Materials planning.

**2. Industrial Purchasing :**                                                              **10%**
- Meaning and importance.
- Principles of Right purchasing.
- Organization and function of Purchasing department.
- Centralized V/s decentralized Purchasing.
- Buying methods.
- Vendor selection.
- Purchase Procedure.

**3. Storekeeping :**                                                                           **5%**
- Meaning, objectives and importance.
- Functions of store keeping.
- store room location and layout.
- Receiving inspection & Issue procedure.
- Stores record.

**4. Inventory Control :**                                                                   **10%**
- Meaning objects, Functions and importance.
- Procurement and Carrying cost.
- Stock- Levels - Maximum , Minimum Economic order Quantity. Re-order point, Safety stock & Stock out.

    - Tools of inventory Control : Perpetual physical Verification, ABC analysis.

**5. Practical Problems on :**                                                          **15%**
1. Learning Curve.
2. Vendor Selection.
3. Computation of different levels of stock.
4. Determination of Economics order Quantity under :
   - the classical EOQ model.
   - EOQ with price Breaks.
   - Build-up model / EOQ model for production runs.