

INDUSTRIAL ENGINEERING MANAGEMENT (BA-1710)

**B. Tech. (CE; EC, IT & EE)
Industrial Management
VI/VII Semester**

Contact Hours : 4 hrs./week

No. of questions to be set : 10 (2 from each unit)

No. of questions to be answered: 5 (1 from each unit)

UNIT I

Philosophy and Development of Management thought. Concept and definition of management, Functions and Roles of Management, Social Responsibilities of Management.

Pioneers in Management, Taylor's Scientific Management, Contribution of Henry Fayol, Gilberth and Mayo.

Schools of Management Thought: Human Behaviour, Social System, Systems approach, management process school.

Control Charts for SQC: Statistical Quality Control (SQC). Control charts on variables such as X, R charts and control charts for attributes such as p-chart, c-chart. Construction & use of the control charts. Process capability.

Reliability : Introduction to reliability, bath-tub curve. Life expectancy. Reliability based design. Series & Parallel System. Defect Diagnosis and prevention : Basic causes of failure, curve/control of failure. MTBF. Maintainability, Condition monitoring and diagnostic techniques.

Value Engineering : Elements of value analysis Techniques

UNIT II

Quantitative Techniques in Managerial Decisions: Concept of budget and budgetary control. Time-event network analysis; ABC Analysis, Break-even Analysis; Decision Tables; Concept of productivity, measuring productivity, Use information technology

Production Management

Types of production; Types of Planning, Manufacturing Planning; Production planning, Scheduling; Work study & Method Study; Systems of wage payments, bonus, Automation. Organization of production, planning and control department.

Materials Management

Practice of purchasing and materials management, quality, quality standards and inspection, sources of supply; pricing principles and practices. Inventory Management, EOQ model; Value Analysis and Value Engineering.

References:

- a) H. Koontz and H. Weihrich, "Management", McGraw Hill, 1989.
- b) Dobler W.D. "Purchasing & Materials Management", TMHC, New Delhi, 1984.