Veer Narmad South Gujarat University, Surat

Proposed Syllabus for Paper : Production Management

S.Y.BBA SEMESTER – IV

Objective : To expose the students to basic concepts of production management like production, production management, interfacing of production function with other functions (marketing, finance and human resource functions), various production systems, plant lay out, plant location, material handling, production planning & control etc. and the supporting tools & techniques such as Inventory control, Quality control, Work study, Value analysis, Control of waste etc.

Pedagogic tools : includes the use of Lectures, Practical examples from day to day applications & industries, Video presentations, home assignments and Industrial visits.(Contents should be covered up in total about 70 sessins/periods)

Evaluation Pattern : 70% University semester exam, and 30% internal(including evaluation heads of Internal test, Assignment and Attendance-class participation. Each head carrying equal weightage of 10 marks each)
About 40% of numerical or practical oriented questions should be asked from Chapter no 4, 6, and 7

Contents:

Chapter 1. : (10 %)
Introduction
Definition and concept of the terms : Production, Operations, Production Management, Operations Management, appropriateness of the term "Operations"
Scope of Production Management - applicability to various organizations like trading organization, manufacturing organization, service organization etc.
functional scope / responsibilities of a production manager.
Importance of Production Management.
Interfacing of Production function with other functions (marketing, finance, and human resource functions)

Chapter 2. : (10 %)
Plant site/ location and Manufacturing systems
Plant location
Concepts of Plant site/ location, Stages of plant site selection,
Factors affecting the selection of plant location
Comparison of Rural (backward) and Urban (developed)Plant location
Methods of selection of plant location

Manufacturing systems
Conceptual understanding of manufacturing systems
Continuous manufacturing system (Mass production, Flow type production)
Intermittent manufacturing system (Batch production, Job shop production, Project type production)

Chapter 3. : (10 %)

Plant lay out and Material handling

Plant lay out

Definition of plant lay out

Factors affecting choice plant lay out

Types of plant lay outs (Process lay out, Product lay out, Fixed position lay out, Cellular manufacturing lay out and Combination lay out)

Material handling

Definition of Material handling

Functions of material handling

Principles of material handling

Factors affecting selection of material handling equipments

Various material handling equipments

Chapter 4. : (20 %)

Production planning and control

Definition and concept of production planning and control

Levels of production planning i.e. Strategic planning, Tactical planning and Operational planning

Master production schedule, Material requirement planning and Capacity requirement planning

Operations scheduling (Definition, Objectives, Scheduling and loading guide lines, Scheduling strategies, Forward scheduling and backward scheduling, Gantt charts for scheduling, Johnson's rule and Assignment technique of scheduling, Priority sequencing rules & their numerical problems, Order release & Dispatching for priority control.

Capacity control and factors affecting capacity

Reporting and status control, follow up.

Chapter 5. : (10 %)

Quality control and Methods of controlling waste

Definition and concept of quality, quality control and quality assurance

Objectives of quality control

Methods of Quality control

Methods of controlling waste

Chapter 6. : (20 %)

Inventory Control

Definition and concept of inventory and inventory control

Objectives of inventory control

Costs associated with inventory control (Order cost, Inventory carrying cost, Shortage cost and others – including the components of each cost)

Selective inventory control i.e. ABC analysis, VED analysis and FSN analysis, ABC vs. VCD matrix.

Economic Order Quantity (EOQ) and basic model for EOQ including assumptions, formula derivation & limitations. Basic model with Price discount.

ERL model for EOQ including assumptions, formula derivation a& limitations EOQ model when shortages are allowed; including assumptions, formula derivation & limitations

Concepts of Lead time, Safety stock, Minimum level, Maximum level and Reorder level of inventory

Chapter 7. : (20 %)

Work study and Value analysis

Work study

Definition and introduction of Work study, Method study and Work measurement (Time study)

Importance of work study

Basic procedure for work study (8 steps as described by ILO) which includes the steps of method study and work measurement

Recording techniques of work study (Out line process chart, Operations process chart, Flow process chart, Two handed chart, Simo chart, Multiple activity chart , Photographic techniques of recording.

Techniques of work measurement (Time study) : (a) Direct measurement giving idea of using instruments for measurement of time and numerical problems on calculation of Standard time, (b) Synthesis, (c) Analytical estimating, (d) PMTS, (e) Work sampling

Value analysis and Engineering

Definition of value analysis and engineering

Importance of Objectives of value analysis and engineering

Procedure for value analysis and engineering

Techniques of value analysis and engineering (Design analysis and Cost analysis).

Reference Books:-

1) Operations Management - by Joseph Monks, McGraw Hill
2) Operations Management - by Everett Adams, PHI
3) Operations Management – by Martinich, PHI
4) Production and Operation Management – by K.Ashwathapa, S.Bhatt- Himalaya Publishing House
5) Production and Operations Management – by Chari, TMH
6) Work Study – ILO
7) Production and Operations Management – by Chunawala and Patel- Himalaya Publishing House
8) Operations Management – by Krajewski – PHI
9) Operation Management – William Stevenson, McGraw Hill