

PAPER CODE: 504: MANAGEMENT SCIENCE

Objectives

- To familiarize the students with the basic concepts of Operations and Production Management
- To learn quantitative techniques in decision making.

UNIT-I:INTRODUCTION TO PRODUCTION MANAGEMENT

Meaning, Definition, Function of production Management, Historical Development Concept, Responsibilities of Production Manager, Recent Trends in production Management. UNIT

II: PRODUCTION PLANNING AND CONTROL:

Introduction to production planning and Control, Objectives, Functions, Routing, Scheduling, Dispatching in Production Planning and Control. UNIT- III: PRODUCTION TECHNIQUES:

Manufacturing System-Introduction, Classification of goods & Services, Introduction manufacturing system job, Batch Production, Mass, Continuous manufacturing System, Plant Location- Factors affecting plant Location.

UNIT-IV: INTRODUCTION TO OPERATION RESEARCH:

Nature, Definition, Characteristics of OR, Phases, Scope, Managerial Applications, Limitations of OR.

UNIT-V: INTRODUCTION TO PERT AND CPM

Basic concepts of PERT & CPM, Phases of Project Scheduling, Network Construction Numbering Events, Critical Path Method, PERT , Applications. SUGGESTED

READINGS;

1. Ashwathappa, K Sridhara Bhatt, Production and Operations Management,HMP
2. Operation Research- P.K.Gupta & D.S.Hira
3. Operation Research and Quantitative techniques-Bhatt SK

4. Basic Operation Research – P.G.Moore

Learning Outcomes

- Students will learn quantitative techniques in operations research
- To understand Job sequencing Techniques in Production and operations.