PGBA S3 02-2

# Production and Operations Management

## Semester III

## BUSINESS ADMINISTRATION

## Block 2

KRISHNA KANTA HANDIQUI STATE OPEN UNIVERSITY

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# MASTER OF BUSINESS ADMINISTRATION

## PRODUCTION AND OPERATIONS MANAGEMENT

## Block 2

### DETAILED SYLLABUS


**Unit 9:** **Materials Management and Inventory Control:** Integrated Materials Management, Components of Integrated Materials Management: Materials Planning, Inventory Control, Purchase Management, Stores management, Inventory Control: Inventory decisions, Costs Trade–off, Models of Inventory, Operation of Inventory System, Quantity Discount, Implementation of Purchase Inventory Model. 149-183

**Unit 10:** **Materials Requirement Planning:** Product Structure/ Bill of Materials (BOM), Concept of Materials Requirement Planning (MRP):Need for MRP,MRP Process, Important Terminologies in MRP, Benefits of MRP, Limitations of MRP, Implementation of MRP, Problems related to MRP, Production systems suitable for MRP implementation; Lot Sizing in Materials Requirement Planning (MRP), Capacity Requirement Planning, Manufacturing Resource Planning (MRP- II) 184-206

**Unit 11:** **Production Planning and Control:** Definition – Objectives of production Planning and Control (PPC): Functions of production planning and control (PPC) – Elements of production control: Routing; scheduling; dispatching; follow-up or expediting; techniques of control; PERT, Types of production Planning and control System, effective PPC, advantages PPC 207-236

**Unit 12:** **Work Study:** Introduction to Method Study and Time Study, Foundation of Work Study, components of Work Study , Time study standards, work sampling 237-252

**Unit 13:** **Quality Control:** Introduction to Quality Control, Organization for quality control, Classification of quality control techniques, process capability, process variations distribution, type of data, six sigma 253-273

**Unit 14: Maintenance Management:** Objectives and types of Maintenance, Maintenance Policy ,Need for replacement, Criteria for Replacement, Replacement problems, Reliability, Determination of Maintenance crew size and Information system for Maintenance Management 274-293

**Unit 15:** **Modern Production Management Tools:** Just in Time Manufacturing – Introduction and overview, push/pull production, Total Quality Management- scope, benefits; ISO 9000 Series- Benefits and steps in ISO 9000 Registration; Poka Yoke; Kaizen; Business Process Reengineering (BPR) : steps and applications; supply chain management, Enterprise Resource Planning (ERP). 294-316

## BLOCK INTRODUCTION

This is the second block of the course Production and Operations Management.

The first unit of this block that is unit 9 explains the material management and inventory control.

The second unit is about materials requirements planning.

The third unit is about production planning and control

The fourt unit explains different concepts related to fwork study.

The fifth unit enlighten us with quality control.

The sixth unit explains about maintenance management

The seventh unit explains about modern production management tools.