PGBA S3 02 01

Production and Operations Management

Semester III

BUSINESS ADMINISTRATION

Block 1

KRISHNA KANTA HANDIQUE STATE OPEN UNIVERSITY

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MASTER OF BUSINESS ADMINISTRATION

PRODUCTION AND OPERATIONS MANAGEMENT

Block 1

DETAILED SYLLABUS

Unit 1: **Production and Operation Management Functions***:* Evolution of Production and Operations Management, Concept of Production, Production System, Production Management, Operations Management, Managing Global Operations and Scope of Production and Operations Management 7-22

Unit 2: **Operations Management:** Introduction, Operations Management and Strategy, Achieving Operations strategies through Excellence, Tools for Implementation of Operations 23-36

Unit 3: **Operations Strategy:** Operations Strategy, Competitive Capabilities and Core Competencies, Operations Strategy as a Competitive Weapon, Linkage Between Corporate, Business, and Operations Strategy, Developing Operations Strategy, Elements or Components of Operations Strategy, Competitive Priorities, Manufacturing Strategies, Service Strategies, Global Strategies and Role of Operations Strategy, Case-lets 37-56

Unit 4: **Forecasting:** The Strategic Importance of Forecasting, Benefits, Cost implications and Decision making using forecasting, Classification of Forecasting Process,, Selection of the Forecasting Method, Qualitative Methods of Forecasting, Quantitative Methods, Associative Models of Forecasting and Accuracy of Forecasting 57-69

Unit 5: **Product Design, Process Planning and Design:** Product Design and Analysis, new product development, steps in product design, Factors to Consider in Product Design, Process planning and design- selection of process, process selection decisions, process planning design, Steps in Process Planning, Process Design- process research, capacity consideration. 70-84

Unit 6: **Capacity Planning:** Introduction- Capacity Planning ,Types of Capacity, Measures of Capacity ,Capacity Planning Strategies, Flexibility in Capacity in a facility, Increasing the capacity of a plant ,Estimating Capacity of a Facility, Capacity Planning: Evaluation of Alternatives, Equipment selection & investment decisions comparison of alternatives 85-103

Unit 7:	**Facility Location:** Factors influencing plant location, break even analysis, single facility location problems, multi facility location problems, mini max location [problems, gravity location problem, Euclidean-distance location problem, covering problem, model for warehouse location problem	104-120
Unit 8:	**Plant Layout and Materials Handling:** Plant Layout**,** Classification of layout, layout design procedures: systematic layout design procedures, Computerized Relative Allocation of Facilities Technique (CRAFT), CRAFT Procedure, application of CRAFT, Automated Layout Design Program (ALDEP), Computerized Relationship Layout Planning (CORELAP), Algorithm and Models for Group Technology, Materials Handling Systems	121-144

COURSE INTRODUCTION:

This is the ninth course of MBA Programme. This course introduces us to the subject- Production and Operations Management. The course “Production and Operation Management” of M.B.A. 3rd Semester will focus on the different aspects of production in the organisation. With the increasing complexities in business organisation the production process also has changed. The business organisation need to produce goods or services at least cost with better quality so that can get competitive advantage.

Therefore, it is very important for the learners of management programme to be well versed with production and operation management.

The course has 15units and is divided into two blocks; Block 1and Block 2.

Block 1 deals with the introductory concepts of production and operations mangement, with product design, capacity planning, forecasting etc.

Block 2 concentrates on inventory and maintenance management and modern management tools .

Each unit of these blocks includes some along-side boxes to help you know some of the difficult, unseen terms. Some “EXERCISES” have been included to help you apply your own thoughts. You may find some boxes marked with: “LET US KNOW”. These boxes will provide you with some additional interesting and relevant information. Again, you will get “CHECK YOUR PROGRESS” questions. These have been designed to self-check your progress of study. It will be helpful for you if you solve the problems put in these boxes immediately after you go through the sections of the units and then match your answers with “ANSWERS TO CHECK YOUR PROGRESS” given at the end of each unit. These have been designed to self-check your performance.

BLOCK INTRODUCTION

The first unit explains the basic concepts of production and operations management.

The second unit is about operation management.

The third unit describes joperations strategy

The fourt unit explains different concepts related to forecasting.

The fifth unit enlighten us with product design concepts.

The sixth unit explains about capacity planning

The seventh unit explains about facility location.

The eighth unit explains about plant layout and materials handling.