

Programme: Bachelor of Management Studies				Semester: IV			
Course: Production and Total Quality Management				Code:			
Teaching Scheme				Evaluation Scheme			
Lecture	Practical	Tutorial	Credits	Theory		Practical	
				Internal	External	Internal	External
60	Nil	Nil	04	40 Mark	60 Marks	Nil	Nil
Internal Component							
Class Test			Presentations			Class Participation	
20 Marks			20 Marks			Nil	
Learning Objectives							
<ul style="list-style-type: none"> ▪ To familiarize students with the fundamental concepts of production, material management and quality management. ▪ To enable students to analyse and apply basic quality management principles ▪ To analyse the interdependencies between production and quality management ▪ To critically examine the strategies of quality management and formulate suggestions for improvement of quality 							
Learning Outcomes							
<ul style="list-style-type: none"> ▪ Learner will be able to explain the fundamental concepts of production, material management, and quality management, demonstrating a comprehensive understanding of these core areas. ▪ Learner will be able to apply basic quality management principles in various scenarios, effectively utilizing the acquired knowledge to address practical challenges and implement quality control measures. ▪ Learner will be able to design strategies for integrating production and quality management processes ▪ Learners will be able to critically evaluating existing practices and formulating innovative solutions to enhance quality standards and drive continuous improvement. 							
Pedagogy							
PPTs, Case studies, Group discussions, Classroom Activity, Videos, Role plays & Simulations, Research papers, News articles etc.							

Detailed Syllabus Plan				
Module	Module Content	Module wise Pedagogy/Activity Used	Duration of Module	Reference Book
I	Introduction to Production Management <ul style="list-style-type: none"> • Introduction to Operations and Operation Management • Manufacturing Systems: Continuous, Intermittent 	<ul style="list-style-type: none"> • Group Discussions • Debate • Video Presentations • Lecture • Case Analysis 	12	Operations Management Theory and Practice, B. Mahadevan, Pearson 2015, 3 rd Edition <i>Part I, Chapter 1</i>

	<p>Production systems and Jumbled Flow systems</p> <ul style="list-style-type: none"> • Relation of Production with other Functions like design function, purchase function • An Introduction to Types of Manufacturing Processes – Casting, Forging, Joining / Welding. • Production Capacity – Measuring capacity, Process Analysis, Capacity Analysis, Capacity Planning issues in Service Organisations. • Aggregate Planning Techniques for Aggregate planning Master Scheduling Master Scheduling Process • Product design and development Product Development Process Phases in Product Design and Development Phases in Service Design Process • Facility/ Plant Location Factors affecting Plant Location Decision • Plant Layout, difference between various types of Plant Layout (Product layout, Process layout, Cellular layout, Static layout) • Plant maintenance. 		<p><i>Part III, Chapter 9</i></p> <p>Operations Management Theory and Practice, B. Mahadevan, Pearson 2015, 3rd Edition <i>Part III, Chapter 8</i></p> <p>Operations Management Theory and Practice, B. Mahadevan, Pearson 2015, 3rd Edition <i>Part III, Chapter 11</i></p>
--	--	--	--

	<ul style="list-style-type: none"> • Production Planning and Control 			<p>Operations Management Theory and Practice, B. Mahadevan, Pearson 2015, 3rd Edition <i>Part II, Chapter 6</i> <i>Part III, Chapter 9</i></p>
II	<p>Materials Management</p> <ul style="list-style-type: none"> • Procurement Process • Purchase Management • Importance of purchasing, various R's of Purchasing • Concept, Objectives, Importance of materials management • Introduction to Demand Forecasting • MRP – Materials Requirement Planning • Brief introduction of Inventory management: EOQ calculation. Inventory related Concepts: Reorder Level, Lead Time, Safety Stock 	<ul style="list-style-type: none"> • Simulation • News & Article reading • Lecture method • Group activities • Case Analysis 	9	<p><i>B. Mahadevan, Pearson, Third Edition</i> <i>Part IV, Chapter 14</i> <i>Part IV, Chapter 16 -16.3</i></p> <p><i>B. Mahadevan, Pearson, Third Edition</i> <i>Part IV, Chapter 14</i></p>
III	<p>Introduction to Productivity</p> <ul style="list-style-type: none"> • Concept of productivity • Various ways/modes of calculating productivity – DJ Sumanth Model. • Ways to improve productivity • Types of Productivity: Partial Productivity and Total Productivity (Simple direct problems relating to productivity, partial productivity and total productivity) • Competitiveness, Strategy - Strategy formulation <p>Operations Strategy</p>	<ul style="list-style-type: none"> • Lecture method • Panel discussions • Role Play • Video presentation • Case Discussions 	12	

	<p>Transforming Strategy into Action – The Balanced Scorecard</p> <ul style="list-style-type: none"> • Principles of Ergonomics in Manufacturing and Service Industries 			<p>Operations Management, William J Stevenson, McGraw Hill, 13th Edition</p>
IV	<p>Quality Management</p> <ul style="list-style-type: none"> • Introduction to Quality, Characteristics of quality • Product and Service Quality dimensions • Philosophies regarding Quality: <ul style="list-style-type: none"> ○ Deming’s contribution to quality –Deming’s 14 Points for management, ○ Juran’s philosophy regarding quality • Lean Management - JIT • Quality Control & Quality Assurance • Quality Tools and Concepts: Quality Circles, Fish Bone Diagram, Poka Yoke, KanBan • TQM and Elements of Total Quality System, Mura, Muri and Muda • Kaizen • Cost of Quality • Six Sigma Methodology • Attaining ISO Standardisations - quality standards such as ISO 9000, QS 9000 and other emerging standards 	<ul style="list-style-type: none"> • Lecture method • Group Discussions • Debate • Group activities • Brain storming • Case Discussions 	12	<p><i>B. Mahadevan, Pearson, Third Edition Part III, Chapter 12</i></p> <p>Operations Management, William J Stevenson, McGraw Hill, 13th Edition</p>

Suggested Reading

Textbook:

1. Operations Management Theory and Practice, B. Mahadevan, Pearson 2015, 3rd Edition
2. Operations Management, William J Stevenson, McGraw Hill, 13th Edition

3. Operations Management, William J Stevenson, McGraw Hill, 14th Edition
4. Production and Operations Management by Chary, S.N, New Delhi McGraw Hill Education 2019, 6th Edition
5. Production and Operations Management Systems, Sushil Gupta and Martin Starr, CRC Press, 2014
6. Production and Operations Management, R. Panneerselvam, PHI Learning Private Ltd, 2012, Third Edition

Reference Books:

1. Operations and Supply Chain Management The Core, F. Robert Jacobs, Richard B. Chase, McGraw Hill Publication, 2023 6th Edition
2. Operations Management, Nigel Slack, Alistair Brandon-Jones, Nicola Burgess, Pearson 2022, Tenth Edition
3. Operations Management Processes and Supply Chains, Lee. J. Krajewski, Manoj Malhotra, Larry P. Ritzman, Pearson, 2016, 11th Edition

Prepared by:

Approved by:

Signature
Head of Department Management

Signature
(Principal)

Total Marks allotted: 100 marks

a) Details of Continuous Assessment (CA)

40% of the total marks per course.

Marks allotted for CA is **40 marks**.

Breakup of the 40 Marks is as follows:

Continuous Assessment	Details	Marks
Component 1 (CA-1)	Internal class test (online or offline) MCQs/Explain the concepts/Answer in brief/Case study or application based questions.	20 marks
Component 2 (CA-2)	Presentations/Project Work/ Viva-Voce/ Book Review/ Field visit & its presentations/ Documentary filming/ Assignments/Group Discussions Etc.	20 marks

b) Details of Semester End Examination (SEE)

60% of the total marks per course.

Marks allotted for SEE is **60 Marks**.

Duration of examination will be **Two Hours**.

QUESTION PAPER FORMAT

All Questions are compulsory

Q. No.	Particulars	Marks
Q.1.	Answer in Brief (Any 2 out of 3) a) b) c)	12
Q.2.	Answer in Brief (Any 2 out of 3) a) b) c)	12
Q.3.	Answer in Brief (Any 2 out of 3) a) b) c)	12
Q.4.	Answer in Brief (Any 2 out of 3) a) b) c)	12
Q.5.	Read the following Case Study and answer the questions that follow.	12

Signature

(Program Chairperson & Vice Principal)

Signature

(Principal)