

SREENIVASA INSTITUTE *of* TECHNOLOGY *and* MANAGEMENT STUDIES
(AUTONOMOUS)

(22MBA124 :PRODUCTION AND OPERATIONS MANAGEMENT)

QUESTION BANK

I MBA / II - SEMESTER

REGULATION: R22



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BY

FACULTY INCHARGE : DR.C.JYOTHSNA, ASSOCIATE PROFESSOR

DEPARTMENT : MASTER OF BUSINESS ADMINISTRATION



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(22MBA124) PRODUCTION AND OPERATIONS MANAGEMENT



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I MBA – Semester - II					
Course Code	PRODUCTION AND OPERATIONS MANAGEMENT	L	T	P	C
22MBA124		4	0	0	4
Course Educational Objectives:					
<p>CEO1: To understand the concepts of POM and to study about product and process designs</p> <p>CEO2: To study about facilities management and aggregate planning</p> <p>CEO3: To analyze about the different types of scheduling process and methods of inventory control</p> <p>CEO4: To study about methods of work measurement and productivity</p> <p>CEO5: To discuss about various quality control techniques</p>					
UNIT - I	Introduction to POM	Lecture Hrs: 10			
<p>Overview of Production and Operations Management (POM)- function-Historical Development of POM- POM scenario today.</p> <p>Product and Process Design: Product and Process Development - Manufacturing Process Technology - CAD/CAM.</p>					
UNIT - II	Facilities Management and Aggregate Planning	Lecture Hrs: 10			
<p>Location of Facilities - Layout of Facilities - Classification of Layouts. Aggregate Planning: Preparation of aggregate demand forecast - Determination of Optimal Production Strategy.</p>					
UNIT - III	Scheduling	Lecture Hrs: 12			
<p>Scheduling in Job Shop Type Production – Shop Loading -Scheduling in Mass - Continuous and Project Type Production - Line balancing - Methods of Production Control - Methods of Inventory control-EOQ, ABC analysis.</p>					
UNIT - IV	Work Study	Lecture Hrs:10			
<p>Method Study - Work measurement - Work Design - Work Sampling - Industrial Engineering Techniques. Productivity: Basic Concepts - Productivity Cycle - Total Productivity Model.</p>					
UNIT - V	Quality management	Lecture Hrs:10			
<p>Economics of Quality Assurance - Inspection and Quality Control - Acceptance Sampling - Theory of control charts, control charts for variables and control charts for attributes - Total quality management and ISO 9000 series standards, Six Sigma.</p>					
Course Outcomes (CO) :					
On successful completion of the course the student will be able to				POs & PSOs related to COs	
CO 1	Analyzes the concepts of POM and various designs of production.	PO1, PO2, PO4, PO5, PSO1, PSO2			



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CO2	Apply the knowledge on facilities management and aggregate planning.	PO1, PO2, PO4, PO5, PSO1, PSO2
CO3	Examine the scheduling process and methods of inventory control.	PO1, PO2, PO4, PO5, PSO1, PSO2
CO4	Outline the concept of work measurement and productivity.	PO1, PO2, PO4, PO5, PSO1, PSO2
CO5	Explain quality control techniques.	PO1, PO2, PO4, PO5, PSO1, PSO2

Text Books:

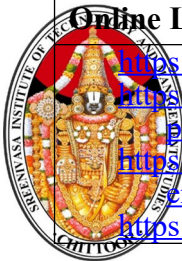
1. Production and Operations Management Books, Prof. K.C. Jain, 2019.
2. Production and Operations Management Systems, Sushil Gupta, Martin Starr, Taylor & Francis, 2014.

Reference Books:

1. Production and operations Management, 3/e, Aswathappa K, Himalaya Publishing House, Mumbai, 2011.
2. Production and Operations Management, 2/e, R. Panner Selvam, PHI Learning Private Ltd., New Delhi. 2006.
3. Production and Operations Management, 5/e, Everett E. Adam, Jr. Ronald J. Ebert, PHI Learning Private Ltd., New Delhi, 2010.

Online Learning Resources:

- <https://www.managementstudyguide.com/process-design-and-analysis.html>
- <http://www.indeed.com/career-advice/career-development/aggregate-planning>
- <http://www.managementstudyguide.com/work-study-and-industrial-engineering.html>
- <https://asq.org/quality-resources/total-quality-management>



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COURSE OUTCOMES VS POs MAPPING (DETAILED; HIGH:3; MEDIUM:2; LOW:1):

Course	CO	PO									
		PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PSO 1	PSO 2
C1204 : PRODUCTION AND OPERATIONS MANAGEMENT	C1204.1	3	3	-	3	3	-	-	-	3	3
	C1204.2	3	3	-	3	3	-	-	-	3	3
	C1204.3	3	3	-	2	3	-	-	-	3	2.5
	C1204.4	3	3	-	2	2	-	-	-	3	2
	C1204.5	3	3	-	3	2	-	-	-	3	2.5
	C1204	3	3	-	2.6	2.6	-	-	-	3	2.6



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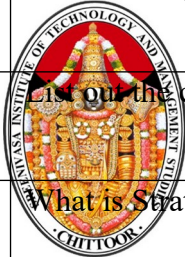
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(22MBA124) PRODUCTION AND OPERATIONS MANAGEMENT

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Question No.	Questions	PO Attainment
UNIT – 1: Introduction		
PART-A (Two Marks Questions)		
1	What is production management?	PO1, PO2, PO4, PO5, PSO1, PSO2
2	What is operations management?	PO1, PO2, PO4, PO5, PSO1, PSO2
3	List out production system concepts?	PO1, PO2, PO4, PO5, PSO1, PSO2
4	Distinguish between production and operations management?	PO1, PO2, PO4, PO5, PSO1, PSO2
5	Give the scope of production and operations management?	PO1, PO2, PO4, PO5, PSO1, PSO2
6	List out the characteristics of modern PO function.	PO1, PO2, PO4, PO5, PSO1, PSO2
7	What is Strategic decision?	PO1, PO2, PO4, PO5, PSO1, PSO2
8	What is Operating decision?	PO1, PO2, PO4, PO5, PSO1, PSO2
9	What is control decision?	PO1, PO2, PO4, PO5, PSO1, PSO2
10	What is meant by Service resolution?	PO1, PO2, PO4, PO5, PSO1, PSO2
11	Trace the evolution of Production function?	PO1, PO2, PO4, PO5, PSO1, PSO2
12	Bring out the characteristics of CAD?	PO1, PO2, PO4, PO5, PSO1, PSO2
13	State the objectives of CAM?	PO1, PO2, PO4, PO5, PSO1, PSO2
14	Name the various Product development stages?	PO1, PO2, PO4, PO5,



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		PSO1,PSO2
15	Define product?	PO1, PO2, PO4, PO5, PSO1,PSO2
16	What is Product Design?	PO1, PO2, PO4, PO5, PSO1,PSO2
17	What is Process Design?	PO1, PO2, PO4, PO5, PSO1,PSO2
18	List the cycles of PLC?	PO1, PO2, PO4, PO5, PSO1,PSO2
19	What is Product Development?	PO1, PO2, PO4, PO5, PSO1,PSO2
20	What is Process Development?	PO1, PO2, PO4, PO5, PSO1,PSO2

PART-B (Ten Marks Questions)

1	What is POM? Give its scope, objectives and importance.	PO1, PO4
2	Define production system? Discuss in detail?	PO1, PO4
3	Trace the evolution of production function in detail.	PO1, PO4
4	Bring out the POM decisions with their applications.	PO1, PO4
5	Write short notes on the following:	PO1, PO4
6	Strategic decision	PO1, PO4
7	Control decision	PO1, PO4
8	Operating decision	PO1, PO4
9	What is production management? What is operations management? Bring out the differences between the two?	PO1, PO4
10	Bring out the stages in the development of a new product. Explain each stage in brief?	PO1, PO4

Question No.	Questions	PO Attainment
UNIT – 2: : Facilities Management and Aggregate Planning		
PART-A (Two Marks Questions)		
1	What is meant by Plant Location?	PO1,PO2



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2	Define Location?	PO1,PO2
3	State the steps in Plant location?	PO1,PO2
4	State the advantages of Village Site?	PO1,PO2
5	List out the advantages of City site?	PO1,PO2
6	Mention the steps in Plant Location?	PO1,PO2
7	Define the term Plant layout?	PO1,PO2
8	What is meant by Plant layout?	PO1,PO2
9	State ant two principles of Plant layout?	PO1,PO2
10	Mention any four types of Layout?	PO1,PO2
11	What do you understand by CM Layout?	PO1,PO2
12	Define the Process Layout?	PO1,PO2
13	State the reasons for revision of Layout?	PO1,PO2
14	What is fixed position layout?	PO1,PO2
15	What is aggregate planning?	PO1,PO2
16	Define Demand Forecast?	PO1,PO2
17	List out the various steps in Demand Forecast?	PO1,PO2
18	What is Master Production Scheduling?	PO1,PO2
19	Define Capacity Utilization?	PO1,PO2
20	Brief notes on Optimal Production Strategy?	PO1,PO2
PART-B (Ten Marks Questions)		
1	What is POM? Give its scope, objectives and importance.	PO1,PO2
2	Define production system? Discuss in detail?	PO1,PO2
3	Trace the evolution of production function in detail?	PO1,PO2
4	Bring out the POM decisions with their applications?	PO1,PO2
5	Write short notes on the following:	PO1,PO2
6	Strategic decision	PO1,PO2
7	Control decision	PO1,PO2
8	Operating decision	PO1,PO2
9	What is production management? What is operations management? Bring out the differences between the two?	PO1,PO2



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10	Bring out the stages in the development of a new product. Explain each stage in brief?	PO1,PO2
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Question No.	Questions	PO Attainment
UNIT – 3: Scheduling		
PART-A (Two Marks Questions)		
1	Define Scheduling?	PO2
2	What is Shop floor planning?	PO2
3	What is Forward Scheduling?	PO2
4	What is Backward Scheduling?	PO2
5	Define Loading?	PO2
6	Brief notes on Finite Loading?	PO2
7	Write short notes on Infinite Loading?	PO2
8	What is Line balancing?	PO2
9	Name any two line balancing methods?	PO2
10	Define Line of Balance?	PO2
11	Draw Gantt Load chart?	PO2
12	List out the techniques of Line of Balance?	PO2
13	What is Production control?	PO2
14	What is Mass Production?	PO2
15	Write short notes on Continuous production?	PO2
16	What is Inventory Control?	PO2
17	List out the methods of Inventory Control?	PO2
18	What is Project type production?	PO2
19	Define EOQ?	PO2
20	Define ABC Analysis?	PO2
PART-B (Ten Marks Questions)		
1	Briefly explain the various elements of operations planning and scheduling system.	PO2
2	What is scheduling? What are the different types of production systems?	PO2
3	What is priority sequencing? List the various criteria used in it and state how an appropriate sequencing rule in practice?	PO2



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4	What scheduling decisions must operations managers resolve in product focused factories?	PO2
5	What is line of balance? Explain the LOB technique with an illustration?	PO2
6	Describe the scheduling process for high volume continuous production system?	PO2
7	What is Line Balancing? Why it is used?	PO2
8	What is Inventory Control? Explain in detail the various methods of Inventory control?	PO2
9	Evaluate EOQ as a method of setting length of Production runs. What are its strengths and Weaknesses?	PO2
10	Explain how EOQ and ABC analysis method improves inventory control. What are its advantages and disadvantages?	PO2



Question No.	Questions	PO Attainment
UNIT – 4: Work Study		
PART-A (Two Marks Questions)		
1	Define the term Work Study?	PO2
2	Define the term Method Study?	PO2
3	What is Work Simplification?	PO2
4	Define the term Motion Study?	PO2
5	What is Time study?	PO2
6	What is Work Measurement?	PO2
7	What do you understand by PMTS?	PO2
8	List out the objectives of Time Study?	PO2
9	What is Work Sampling?	PO2
10	What is Work Design?	PO2
11	What is Job Design?	PO2
12	List out the factors affecting Job Design?	PO2
13	What are the steps involved in Work measurement?	PO2
14	Write short notes on Industrial Engineering Techniques?	PO2



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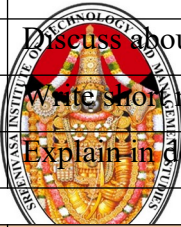
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15	Define Productivity?	PO2
16	List out basic concepts of Productivity?	PO2
17	Mention the steps in Productivity cycle?	PO2
18	What is Total Productivity Model?	PO2
9	How do you improve Productivity?	PO2
20	Define Ergonomics?	PO2

PART-B (Ten Marks Questions)

1	Define the term Work Study and State its objectives?	PO2
2	Define the term Method Study and state its objectives?	PO2
3	Enumerate the steps involved in basic work study procedure?	PO2
4	Briefly describe the various steps involved in method study procedure?	PO2
5	What are the various types of charts used in method study?	PO2
6	State the objectives of work Measurement. What are its benefits?	PO2
7	What is work sampling? What are its uses?	PO2
8	Discuss about: a. Job Design b. Work Design	PO2
9	Write short notes on Industrial Engineering Techniques?	PO2
10	Explain in detail about Total Productivity Model?	PO2



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Question No.	Questions	PO Attainment
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UNIT – 5: Quality management

PART-A (Two Marks Questions)

1	Define the term Quality?	PO1,PO2
2	Define the term Quality Creation?	PO1,PO2
3	Define the term Quality Assurance?	PO1,PO2
4	What is Inspection?	PO1,PO2
5	Write short notes on Economics of Quality Assurance?	PO1,PO2
6	Define the term Quality Control?	PO1,PO2
7	What is SQC?	PO1,PO2
8	What is TQM?	PO1,PO2
9	What do you mean by Acceptance Sampling?	PO1,PO2
10	State the types of Control Charts?	PO1,PO2
11	List the Control charts for variables?	PO1,PO2
12	List the Control charts for Attributes?	PO1,PO2
13	What do you mean by ISO?	PO1,PO2



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14	What is Six Sigma?	PO1,PO2
15	Give the components of TQM?	PO1,PO2
16	What is JIT?	PO1,PO2
17	Who is Master Black belt?	PO1,PO2
18	What is the role of Green Belts?	PO1,PO2
19	What is DMADC?	PO1,PO2
20	State the objective of ISO 9000	PO1,PO2
PART-B (Ten Marks Questions)		
1	Define Quality? How it is ensured?	PO1,PO2
2	Discuss in detail the quality control techniques?	PO1,PO2
3	Bring out the famous Deming's principle of quality?	PO1,PO2
4	What are Control charts? Discuss in detail the different types of control charts?	PO1,PO2
5	What is Quality Control? How are they formed and how can they be made more effective?	PO1,PO2
6	What is Six Sigma? What are the various elements of six sigma?	PO1,PO2
7	Discuss in detail Acceptance sampling? How it is under gone in Quality management?	PO1,PO2
8	What is Total quality management? What are its key components?	PO1,PO2
9	What is ISO? Bring out the benefits from getting ISO 9000 Certificate?	PO1,PO2
10	Define Quality? How it is ensured?	PO1,PO2

ALL THE BEST