



R22 Regulation

Subject code: D143PCI

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

MBA III Semester Regular/Supplementary Examinations, February 2025

PRODUCTION AND OPERATIONS MANAGEMENT

Maximum Marks: 60

Date:03.02.2025

Duration: 3 hours

- Note:**
1. This question paper contains two parts A and B.
 2. Part A is compulsory which carries 10 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Answer any one full question from each unit.
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A		CO	Bloom Tx
All the following questions carry equal marks (10X1M=10 Marks)			
1.a)	What is meant by "strategic operations management"?	1	1
b)	Define flow production.	1	1
c)	What is new product development?	2	1
d)	Define process planning in product design.	2	1
e)	What are the limitations of product layout?	3	1
f)	List the different types of plant layouts.	3	1
g)	What is job shop scheduling?	4	1
h)	What is the role of quality control in scheduling?	4	1
i)	Define green purchasing.	5	1
j)	What does the EOQ model represent?	5	1
Part-B		CO	Bloom Tx
Answer All the following questions. (5X10M=50Marks)			
2	A. Briefly explain the World Class Manufacturing. [5M] B. Explain how Industry 4.0 is revolutionizing operations management. [5M]	1	2 2
OR			
3	Distinguish between job shop, batch and mass production system with example. [10M]	1	3
4	What is value engineering? Explain process, procedure of value engineering. [10M]	2	2
OR			
5	A. Write a note on Capacity Planning. [5M] B. Identify and explain the steps in process planning. [5M]	2	1 3
6	A. Explain the various Factors Influencing Plant Location. [5M] B. Write a note on Layout Design Procedures. [5M]	3	2 1
OR			
7	A. List out different Factors Influencing Plant layout. [5M]	3	1 3

	B. Identify the advantages and limitations of Product Layout. [5M]																							
8	A. Discuss the procedure of Johnson's Algorithm in job sequencing. [5M] B. What are heuristic procedures? Explain their role in scheduling. [5M]	4	3 2																					
	OR																							
9	Six jobs, 2 machines in the order M1, M2. Find the sequence of the jobs that minimizes the total elapsed time to complete the jobs. The following machine time is given (in hours). [10M]	4	4																					
	<table style="margin-left: auto; margin-right: auto;"> <tr> <td>Jobs</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> </tr> <tr> <td>M1</td> <td>7</td> <td>5</td> <td>6</td> <td>9</td> <td>8</td> <td>4</td> </tr> <tr> <td>M2</td> <td>3</td> <td>5</td> <td>8</td> <td>7</td> <td>4</td> <td>9</td> </tr> </table>	Jobs	1	2	3	4	5	6	M1	7	5	6	9	8	4	M2	3	5	8	7	4	9		
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M1	7	5	6	9	8	4																		
M2	3	5	8	7	4	9																		
10	A. What is ABC analysis of Inventory control? Explain. [5M] B. What is XYZ analysis in materials management? Explain its use. [5M]	5	2 2																					
	OR																							
11	A. Explain the concept of purchase management and its importance in materials management. [5M] B. Write a note on stores management. [5M]	5	2 1																					