UPES

UPES
End Semester Examination, December 2024

Course: Operations Management   **Semester: III**
Program: BBA (Digital Business)   **Time: 03 hrs.**
Course Code: LSCM3034   **Max.Marks: 100**

Instructions: Students are not allowed to use Scientific Calculators

SECTION A
(5Qx2M=10Marks)

S. No.		Marks	CO
Q 1	All questions are compulsory (True or False)		
1.1	Competitiveness in operations is determined only by the price of the product or service, not by the quality or time. (T or F)	**2**	**CO1**
1.2	The productivity of the system can be increased by increasing the output with the improved utilization of input resources. (T or F)	**2**	**CO1**
1.3	The desire for a lightweight product is an example of customer requirements in the House of Quality. (T or F)	**2**	**CO1**
1.4	Demand forecasting in operations management is primarily aimed at predicting stock market trends and production costs. (T or F)	**2**	**CO1**
1.5	Rough-cut capacity is the medium range capacity plan and evaluates the capacity required to meet the master production schedule. (T or F)	**2**	**CO1**

SECTION B
(4Qx5M= 20 Marks)

Q 2	All questions are compulsory (Short answer type)		
2.1	How do productivity improvements differ from production improvement?	**5**	**CO1**
2.2	How do manufacturing operations differ from the service operations?	**5**	**CO2**
2.3	Define the JIT, lean, and KANBAN system and their benefits.	**5**	**CO2**
2.4	Given the data 63, 64, 66, 67, 67, 69, 71, 72, find the forecast for the ninth period using simple exponential smoothing? Use $\alpha = 0.3$ and initial forecast using simple average. Is it a good forecast? Why or why not?	**5**	**CO3**

SECTION-C
(2Qx10M=20 Marks)

Q 3	Imagine you are the operations manager of a small electronics manufacturing company. You're facing challenges with forecasting demand for your products. Discuss the advantages and disadvantages of	**10**	**CO3**

	using the Delphi method for demand forecasting in your context and explain why you might choose this method over others. Also discuss briefly how quantitative techniques would help to get a more accurate demand forecast?		
Q 4	a) Explain the rated and effective capacities with appropriate examples. b) Compute the efficiency and the utilization of the vehicle repair department having rated and effective capacities of 60 and 45 cars per day respectively. The actual output of the repair department is 40 cars per day. Suggest your solutions to improve the utilization of the vehicle repair department.	10	CO3

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SECTION-D
(2Qx25M=50 Marks)

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Q 5	The following information regarding the output produced and input consumed for a particular time period for a particular company is given below: Output =10000Rs. Human input = 3000Rs. Material input= 2000Rs. Capital input= 3000Rs. Energy input= 1000Rs. Other miss. Input = 500Rs. The values are in terms of the base year rupee value. Compute various productivity indices.	25	CO4

Q 6	Consider the case of an automobile manufacturing company as a production system in which the end product is a car. For the given production system, apply the fundamental concepts of quality management and answer the following questions:
	   a) Define quality of the end product (car) from the producer's and customer's perspectives.
	   b) Develop a fitness-for-use description for final product quality.
	   c) Discuss the various inspection methods of quality control for the given case.
		25	CO4