QP Code: RM23MTECH137 | Reg. No | | | | | | | | | | | AY 23

GIET UNIVERSITY, GUNUPUR – 765022

M. Tech (Second Semester) Examinations, May – 2024

MPEMT2032 – Manufacturing Management

(Manufacturing Technology)

Time: 3 Hrs | Maximum: 70 Marks

(The figures in the right hand margin indicate marks.)

PART – A **(2 x 10 = 20 Marks)**

Q.1. Answer all questions	CO#	Blooms Level
a. Explain the meaning of competitiveness in operations management.	CO1	K1
b. Distinguish quality and productivity.	CO1	K2
c. State the factors effecting plant location selection.	CO2	K1
d. Define safety stock and outline the factors which decide its quantity.	CO3	K1
e. State the importance of forecasting error calculation and types.	CO3	K1
f. Explain ABC classification in the context of inventory.	CO3	K2
g. Explain the different patterns in time series method.	CO2	K2
h. Distinguish product layout and process layout?	CO2	K2
i. State the different inputs required for MRP System?	CO4	K1
j. Explain production scheduling.	CO4	K2

PART – B **(10 x 5=50 Marks)**

Answer ***ANY FIVE*** questions	Marks	CO#	Blooms Level
2. a. Explain the competitive strategies in the current global manufacturing scenario.	5	CO1	K1
b. Discuss the phases of new product development.	5	CO1	K2
3.a. A firm believes that its annual profit depends on its expenditures for research. The information for the preceding five years is given below. Estimate the profit when the expenditure is 8 units.	6	CO2	K3

Year	1	2	3	4	5	6
Expenditure for research (X)	2	3	5	4	11	8
Annual Profit (Y)	20	25	34	30	40	**?**

b. Explain different qualitative techniques in forecasting.	4	CO2	K2

4. a.	The maintenance department of a large hospital uses about 816 cases of liquid cleaner annually, ordering costs are Rs. 12, carrying costs are Rs. 4 per case a year, and the new price schedule indicates that orders of less than 50 cases will cost Rs. 20 per case, 80 to 99 cases will cost Rs. 17 per case, and larger orders will cost Rs. 16 per case Determine the optimal order quantity and the total cost.	10	CO3	K3
5.a.	Discuss different type of production system with appropriate examples.	5	CO2	K1
b.	Explain different location selection models.	5	CO2	K2
6. a.	Discuss capacity requirement planning.	5	CO2	K1
b.	Outline the importance of pure strategy and mixed strategy.	5	CO4	K3
7.a.	Describe about chase plan and level plan in aggregate planning.	5	CO4	K2
8. a.	Write Short notes on P-type and Q-type inventory system.	5	CO3	K3
b.	Interpret the JIT philosophy in the context of Indian manufacturing industry.	5	CO4	K2

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