

USN

--	--	--	--	--	--	--	--	--	--

20MCM15

First Semester M.Tech. Degree Examination, Feb./Mar. 2022 Operations Management

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Write a note on production systems and their management. (10 Marks)
b. Explain different types of management in use. (10 Marks)

OR

- 2 a. What are the tasks of a production manager? (10 Marks)
b. Write a note on models for managerial decision making. (10 Marks)

Module-2

- 3 a. What is canonical form of LPP? Explain with an example. (10 Marks)
b. Write a note on basic feasible solution. (10 Marks)

OR

- 4 a. Solve by simplex method

$$\text{Max } Z = 5x_1 + 3x_2 + 7x_3$$
 subject to $x_1 + x_2 + 2x_3 \leq 22$
 $3x_1 + 2x_2 + x_3 \leq 26$
 $x_1 + x_2 + x_3 \leq 18$
 $x_1, x_2, x_3 \geq 0$ (10 Marks)
 b. Briefly explain different dynamic optimization models. (10 Marks)

Module-3

- 5 a. Write a note on forecasting using linear regression. (10 Marks)
b. Write a note on simple exponential smoothing. (10 Marks)

OR

- 6 a. Explain linear programming for aggregate planning. (10 Marks)
b. Explain process and product layout. (10 Marks)

Module-4

- 7 a. What are the costs associated with inventory policy? (10 Marks)
b. Explain simple EOQ model. (10 Marks)

OR

- 8 a. Explain parameters of an inventory policy. (10 Marks)
b. Explain the basics of an inventory system. (10 Marks)

Module-5

- 9 a. Write a note on master production schedule. (10 Marks)
b. Write a note on information's provided by the MRP system. (10 Marks)

OR

- 10 a. What are the effects of JIT production. (10 Marks)
b. Write a note on KANBAN system. (10 Marks)

* * * * *

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.