

Code No: **R204103X**

R20

SET - 1

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY GURAJADA VIZIANAGARAM
IV B. Tech I Semester Advanced Supplementary Examinations March 2025

OPERATIONS MANAGEMENT

(Open Elective)

Time: 3 hours

Max. Marks: 70

Answer any **FIVE** Questions **ONE** Question from **Each unit**

All Questions Carry Equal Marks

UNIT-I

1. a) Describe the principles and uses of forecasting techniques. [7M]
b) Discuss the types production systems with examples. [7M]

(OR)

2. a) Describe the types of forecasting techniques. [7M]
b) Explain about aggregate production strategies. [7M]

UNIT-II

3. a) What are the differences between Loading and Scheduling policies? [7M]
b) Define materials management? What are the functions materials management? [7M]

(OR)

4. a) Describe the Standard scheduling methods. [7M]
b) Explain about inventory control techniques. [7M]

UNIT-III

5. a) Describe Economic Order Quantity. [7M]
b) Describe Material Requirement Planning in detail. [7M]

(OR)

6. a) What is price break model. [7M]
b) Explain about JIT &ERP in detail. [7M]

UNIT-IV

7. a) Outline Acceptance sampling in detail. [7M]
b) Describe ISO9000,2015 standards. [7M]

(OR)

8. a) Define SQC. Explain about control charts for variables & control charts for attributes. [7M]
b) Describe Demings 14 principles. [7M]

UNIT-V

9. a) State the special cases in Assignment problems. [7M]
b) Estimate optimum transportation cost under Vogel's approximation method [7M]

Destinations	A	B	C	D	Supply (Units)
P1	5	10	4	5	100
P2	6	8	7	2	250
P3	4	2	5	7	200
Demand (Units)	250	100	150	50	550

(OR)

10. a) Outline the significance of LPP. [7M]
b) Solve the following LPP using graphic method [7M]

Maximize $Z=40X+35Y$

Subject to : $2X+3Y \leq 60$

$4X+3Y \leq 96$; $X, Y \geq 0$
