

Seat No. **MAR\_APR 2025 SUMMER EXAMINATION****1156 Master of Technology****Sub. Name: Manufacturing Systems Design****Sub. Code: 72745****Day and Date: JUNE ,02-06-2025****Total Marks: 70****Time: 10:30 AM To 01:30 PM**

**Instructions:** 1. All questions are compulsory  
2. Assume suitable data wherever necessary and mention it boldly  
3. Draw neat labelled diagrams wherever necessary

- Q1)** Solve any two [12]
- a. Write a note on logistic system. [6]
  - b. Explain in detail decision making process [6]
  - c. Explain various aspect of manufacturing system. [6]
- Q2)** Solve any two [12]
- a. Explain the criteria for line balancing [6]
  - b. Explain in brief product design aspects [6]
  - c. Explain optimum routing analysis using dynamic programming and network technique. [6]
- Q3)** Write a short note on [10]
- a. Optimization of multistage manufacturing system [5]
  - b. Unit Production time and cost [5]
- Q4)** Solve any two [12]
- a. What are different types of data and. Explain automatic data collection System [6]
  - b. Explain data base system of Information Systems in Manufacturing [6]
  - c. Explain online data collection system [6]
- Q5)** [12]
- a. Explain Design and evaluation methodology of manufacturing systems [6]

- b. Explain characteristic and simulation of Computer Simulation in Manufacturing System Analysis.

**Q6) [12]**

- a. Explain Hollier method for GT cell layouts. **[6]**
- b. What are the different types of machine cells and layouts in GT? **[6]**
- c. What is group technology and its importance? **[6]**

## **End Of Question Paper**

**Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -**

This Question Paper may be distributed for following Subjects as common code.

सदरची प्रश्नपत्रिका खालील विषयांकरिता वितरित करता येईल.

- 1] (1156) Master of Technology (CBCS) (72745) Manufacturing Systems Design Part 1 SEM 2