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Question Paper Code	13333
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M.E. / M.Tech. - DEGREE EXAMINATIONS, NOV / DEC 2024 (JAN – 2025)

First Semester

ME - CAD/CAM

24PCDPC101 - COMPETITIVE MANUFACTURING SYSTEMS

Regulations - 2024

Duration: 3 Hours

Max. Marks: 100

PART - A (10 × 2 = 20 Marks)

Answer ALL Questions

	Marks	K- Level	CO
1. List out the areas of competitive manufacturing systems.	2	K1	CO1
2. Compare design for assembly and disassembly.	2	K2	CO1
3. Define group technology.	2	K1	CO2
4. List out the benefits of FMS.	2	K1	CO2
5. Write the classification of software in FMS.	2	K1	CO3
6. Mention the application of CAD/CAM in FMS.	2	K1	CO3
7. Define total productive maintenance.	2	K1	CO4
8. Define the concept of pokayoke.	2	K1	CO4
9. Define inventory management.	2	K1	CO5
10. Define kanban system.	2	K1	CO5

PART - B (5 × 13 = 65 Marks)

Answer ALL Questions

11. a) Explain about the different automation in manufacturing with its benefits. 13 K2 CO1

OR

b) Classify the Industrial robots and explain about its applications with advantages and disadvantages. 13 K2 CO1

12. a) Explain the different methods of solving part family grouping. 13 K2 CO2

OR

b) Explain the technique used in knowledge based scheduling in FMS. 13 K2 CO2

13. a) Explain about Simulation project with its procedure. 13 K2 CO3

OR

b) Explain the operation of material handling system with the aid of central computer to optimize flow of parts in FMS. 13 K2 CO3

14. a) Explain the seven types of waste reduction strategies in lean manufacturing. 13 K2 CO4

OR

b) Explain the lean culture with its implementation steps. 13 K2 CO4

15. a) Explain how inventories are reduced through JIT. 13 K2 CO5

OR

b) Explain the systematic procedure of VSM implications. 13 K2 CO5

PART - C (1 × 15 = 15 Marks)

16. a) Demonstrate the process of 5S in the context of working environment. 15 K2 CO4

OR

b) Explain the implementation procedure of JIT in Industry. 15 K2 CO5