

Reg. No. :

Question Paper Code : 10391

M.E./M.Tech. DEGREE EXAMINATIONS, APRIL/MAY 2019.

First Semester

CAD/CAM

CC 5101 — COMPETITIVE MANUFACTURING SYSTEMS

(Regulation 2017)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Define automation
2. List out the applications of sensor technology.
3. What do you mean by group technology?
4. What is production flow analysis?
5. What are the components of FMS?
6. What is data flow?
7. Define Total Productive Maintenance.
8. Define Kaizen.
9. Discuss the benefits of preventive maintenance.
10. What do you mean by lean manufacture?

PART B — (5 × 13 = 65 marks)

11. (a) (i) Write the differences between numerical control and adaptive control. (7)
- (ii) List out the advantages and disadvantages of various numerical control systems. (6)

Or

- (b) Explain the application of Industrial robots with examples.

12. (a) Describe the concept of part family with a suitable illustration.

Or

(b) With suitable sketches, explain the various FMS configuration prevalent today.

13. (a) Explain the applications of simulation software.

Or

(b) Explain manufacturing data systems.

14. (a) Describe the 5S system and write its benefits.

Or

(b) Explain Poka Yoke systems with two examples.

15. (a) List the objectives of JIT and explain briefly characteristics of JIT.

Or

(b) Explain lean manufacturing.

PART C — (1 × 15 = 15 marks)

16. (a) Describe the implementation of concepts of lean manufacturing with an example.

Or

(b) With an example explain, How JIT implemented in Toyota Production system?