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B.E/B.Tech DEGREE END SEMESTER EXAMINATIONS,NOV/DEC 2012

Manufacturing Engineering

Sixth Semester

MF9351 –COMPUTER INTEGRATED PRODUCTION MANAGEMENT SYSTEMS

(REGULATIONS 2008)

Time:3 hr

Max.Mark:100

Answer ALL Questions

Part A (10 x 2 =20 Marks)

1. What are the Characteristic of good Forecast?
2. What are the three types of production systems?
3. What is the difference between MRPI and MRPII?
4. If you are a capacity planner, when you will encourage short term outsourcing?
5. What is the role of Gantt chart in the shop floor control?
6. State any two applications of automatic identification systems.
7. What is the need for automating process planning?
8. List out any four commercially available expert systems for process planning.
9. Make a short note on knowledge representation
10. What is the difference between decision table and decision tree?

Part B (5 x 16=80 Marks)

11. i) Explain through a flowchart steps involved in forecasting process 8
ii) Enumerate problems with traditional production planning control. 8
 12. a.i) List out the types of Bill of Materials? Explain with examples. 8
ii) Explain about the benefits of MRP 8
- Or
- b. The MRP gross requirements for Item A are shown here for the next 10 weeks. 16

Week	1	2	3	4	5	6	7	8	9	10
Gross requirements	20	10	15	45	10	30	100	20	40	150

Use the least total cost and least unit cost lot-sizing method to determine when and for what quantity the first order should be released.

13. a.i) Explain how online data collection system are different from offline data collection systems. 8
- ii) Explain how does a bar code reader work 8
- Or
- b.i) Name and explain different phases involved in a shop floor control system. 8
- ii) Explain any two industrial applications of automatic identification systems. 8
14. a.i) Discuss about the future trend of CAPP. 8
- ii) Discuss the application of Expert system in process planning and explain any one of them in detail. 8
- Or
- b.i) Explain the basic functions of Process planning. 8
- ii) Give your comments on "Expert systems can be used in a generative process planning approach to make a powerful system" 8
15. a.i) Discuss about the role of artificial intelligence in automation of process planning 8
- ii) List out various part description methods. Explain any one. 8
- Or
- b.i) Discuss the two standard plan editors used in variant process planning. 8
- ii) Explain about forward and backward planning with examples 8
