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Question Paper Code: 22012

M.E. DEGREE EXAMINATION, MAY 2014.

Second Semester

CAD / CAM

01PCD202-INTERGRATED MANUFACTURING SYSTEMS

(Regulation 2013)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions.

PART A - (10 x 2 = 20 Marks)

1. Write the objectives of manufacturing system.
2. List the key parameters that are influential in determining how the products are manufactured.
3. Define MRP.
4. What are the technologies used in Automatic Data Collection system?
5. Define FMS.
6. Write the applications of Transfer lines.
7. Write the types of Production monitoring system.
8. Write the principal contact inspection technologies.
9. List out the function performed by the FMS computer control system.
10. Define Rapid Prototyping.

PART - B (5 x 14 = 70 Marks)

11. (a) Briefly explain the three basic types of automated manufacturing systems. (14)

Or

(b) Describe the basic activities that must be carried out in a factory to convert raw materials into finished products. (14)

12. (a) Explain in detail about the three phases in a shop floor control system. (14)

Or

(b) Describe briefly about the various Automatic Identification Methods. (14)

13. (a) (i) Explain in detail about an alternative assembly systems in detail. (7)

(ii) Explain in detail about the principle of design for assembly. (7)

Or

(b) Explain the work part Transfer Mechanisms in automated production line. (14)

14. (a) Explain in detail about process control and its strategies in detail. (14)

Or

(b) Explain in detail about non contact optical and non-optical inspection techniques with a neat sketch. (14)

15. (a) Explain the 10 Principles of Material Handling. (14)

Or

(b) Explain in detail about the Artificial intelligence and Expert system in CIM. (14)

PART - C (1 x 10 = 10 Marks)

16. (a) Explain the activities in a Production planning and control system and their relationships with other functions in the firm and outside. (10)

Or

(b) Explain the various material handling equipments used in casting industries with a neat sketch. (10)