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Question Paper Code : 71864

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2015.

Seventh Semester

Mechanical Engineering

ME 2402/ME 72/10122 ME 703 — COMPUTER INTEGRATED
MANUFACTURING

(Regulation 2008/2010)

(Common to PTME 2402/10122 ME 703 – Computer Integrated Manufacturing for
B.E. (Part-Time) Sixth Semester – Mechanical Engineering
– Regulation 2009/2010)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Write the various methods for representing the solids in CAD.
2. Mention the reasons for implementing CAD.
3. What is meant by topology?
4. Write the types of Guided media.
5. List the factors to be considered in selection of coding system.
6. List any two advantages of CAPP.
7. Define Master Production Schedule.
8. Write the main elements of Flexible Manufacturing System.
9. List the types of inventory.
10. Define the term Direct Digital Control.

PART B — (5 × 16 = 80 marks)

11. (a) (i) What are homogeneous co-ordinates? How can the composition of 2D Transformations be carried out? (6)
- (ii) What is CAD? Discuss the various design related tasks performed by CAD. (10)

Or

- (b) (i) Discuss the computer graphics display devices (10)
- (ii) List the benefits and applications of CAD. (6)

12. (a) (i) State the special features of LAN. Also describe the various elements of LAN. (8)
- (ii) What is meant by Product Data Management? Explain why it is important in CAD/CAM integration. (8)

Or

- (b) (i) What is meant by serial transmission and explain the types in detail? (8)
- (ii) Describe about seven layer OSI model in computer networking. (8)

13. (a) (i) Discuss the Product Flow Analysis in detail. (8)
- (ii) Explain the criteria for selecting a CAPP system. (8)

Or

- (b) (i) List the benefits and applications of Group Technology. (10)
- (ii) Explain briefly about the variant CAPP system. (6)

14. (a) Explain in detail the phases of shop floor control system. (16)

Or

- (b) (i) List and explain the various functions that are performed by the FMS computer control system. (10)
- (ii) Discuss the benefits of FMS. (6)

15. (a) (i) Explain the problems associated with the traditional production planning and control. (8)
- (ii) How are the input and output variables classified in structural model of manufacturing? (8)

Or

- (b) (i) Explain the four classes of users and four steps of evolution in MRP. (8)
- (ii) Explain briefly Cost planning and control and capacity planning and control. (8)
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