Reg. No. : | | | | | | | | | | |

Question Paper Code: 31774

B.E. / B.Tech. DEGREE EXAMINATION, NOV 2016

Seventh Semester

Mechanical Engineering

01UME704 - COMPUTER INTEGRATED MANUFACTURING

(Regulation 2013)

Duration: Three hours Maximum: 100 Marks

Answer ALL Questions

PART A - (10 x 2 = 20 Marks)

1. What is meant by wire frame modeling?
2. Differentiate between redraw and regenerate.
3. Elucidate the role of CIM in manufacturing.
4. What is meant by MAP?
5. List the advantages of cellular manufacturing.
6. What is meant by process planning?
7. List out the components of FMS.
8. Outline the advantages of implementing FMS.
9. Classify the types of inventory.
10. Define agile manufacturing.

PART - B (5 x 16 = 80 Marks)

11. (a) (i) Explain 2D geometric transformation matrix for translation and rotation with a simple example**.** (10)

(ii) Scale the rectangle A(-1, -1), B(1, -1), C(1, 1) and D(-1, 1) by 2 units in X and Y direction about the origin. (6)

Or

(b) Describe the concepts of solid modelling and surface modelling and list the features of solid modelling software. (16)

12. (a) Discuss the changes in manufacturing and management scenes in the recent past that led to the development of CIM? (16)

Or

(b) (i) Explain the functions of each layer in ISO-OSI model. (12)

(ii) List the major applications of Intranet. (4)

13. (a) (i) Describe about the MCLASS coding system. (8)

(ii) Explain the benefits of implementing a group technology in a firm. (8)

Or

(b) Describe the generative and variant computer aided process planning approaches in detail. (16)

14. (a) (i) Describe the benefits of FMS. (8)

(ii) Describe the principle of an automated storage and retrieval system. (8)

Or

(b) Discuss the major elements of FMS? Explain the materials handling system in FMS. (16)

15. (a) Describe the major applications of MRP II software. (16)

Or

(b) (i) Compare the lean and agile manufacturing. (8)

(ii) Describe the components of direct digital control with neat sketch. (8)

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