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Question Paper Code : 42858

B.E./B.Tech. DEGREE EXAMINATION, APRIL/MAY 2018

Seventh Semester

Mechanical Engineering

ME 2402 – COMPUTER INTEGRATED MANUFACTURING

(Regulations 2008)

(Common to PTME 2402 – Computer Integrated Manufacturing for BE
(Part-Time) Sixth Semester – Mechanical Engineering – Regulations 2009)

Time : Three Hours

Maximum : 100 Marks

Answer ALL questions.

PART – A

(10×2=20 Marks)

1. Write the various methods for representing the solids.
2. Mention the reasons for implementing CAD.
3. Write the importance of CIM.
4. What are all the components of a LAN ?
5. Define : Cellular manufacturing.
6. Define Part family.
7. What is an FMS ?
8. Distinguish between PULL and PUSH systems.
9. List the Activities of production planning.
10. Define the term DDC.

PART – B

(5×16=80 Marks)

11. a) i) What are homogeneous co-ordinates ? How the composition of 2D Transformations can 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) Compare the characteristics of various LAN topologies. (6)
ii) List the various benefits of implementing a CIM system. (10)
- (OR)
- b) i) Compare the characteristics of various guided transmission media. (8)
ii) Write short notes on : (8)
1) Multiplexers
2) Synchronous transmission
13. a) i) Explain the criteria for selecting a CAPP system. (10)
ii) List out the factors should be considered while selecting a suitable coding system. (6)
- (OR)
- b) Discuss the various benefits of implementing a GT in a firm. Also bring out the advantages and limitations of using GT. (16)
14. a) i) List and explain the functions of the Material handling systems in a FMS. (8)
ii) Discuss the types of data collected by FDC. (8)
- (OR)
- b) i) Distinguish between Dedicated FMS and Random order FMS. (8)
ii) Write short notes on : (8)
1) CODE 39
2) Functions of SFC
15. a) i) Explain the problems associated with the traditional production planning and control. (8)
ii) How the input and output variables are classified in structural model of manufacturing ? (8)
- (OR)
- b) i) List the benefits of MRP. (8)
ii) Explain the optional distributed control with neat sketch. (8)