

Roll No

MMIP - 103
M.E./M.Tech., I Semester
Examination, December 2015
CAD / CAM / CIM
Time : Three Hours

Maximum Marks : 70

- Note :* i) Attempt any five questions.
ii) All questions carry equal marks.

1. a) Give the general configuration of a CAD computer system. CAD helps in integrating CAM - Justify this statement.
b) Specify the three principal classifications of the geometric modelling systems and write in brief about each of them.
2. a) Differentiate between Bezier and B-spline surface with reference to number of control points, order of continuity and surface normal.
b) Draw CIM wheel. Describe hardware configuration of CIM with the help of a sketch.
3. a) How does CIM integrate all activities of industry? Explain.
b) Explain in detail the different types of database requirements in CIM.
4. a) Describe the axis representation system used for CNC Milling machines.
b) What is a CL data file? Explain its significance. Describe the features of CNC machining centres.

5. a) Enumerate the advantages of Adaptive Control System when compared with CNC/DNC.
b) Differentiate between :
i) NC, CNC and DNC system
ii) ACC and ACO adaptive control system
6. a) Define the term "Group Technology" and its importance in plant layout and manufacturing process planning.
b) Explain OPITZ classification system.
7. a) Discuss various type robot configurations with neat sketch.
b) Explain the functioning of automated storage/retrieval systems with neat sketch.
8. a) Discuss in brief, various programming methods used in robot.
b) Define AGVs. Explain their operating principle. State its different types.

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