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Roll No ....

ME - 804

B.E. VIII Semester
Examination, June 2016

CAD / CAM / CIM

Time : Three Hours

Maximum Marks : 70

Note: i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.

ii) All parts of each question are to be attempted at one place.

iii) All questions carry equal marks, out of which part A and B (Max. 50 words) carry 2 marks, part C (Max. 100 words) carry 3 marks, part D (Max. 400 words) carry 7 marks.

iv) Except numericals, Derivation, Design and Drawing etc.

1. a) Define CAD. Explain the reasons for adopting CAD in engineering organisation.

   b) What do you understand by lean manufacturing.

   c) Write about prototype development as part of design process.

   d) Briefly explain the compulensed product cycle in the manufacturing environment.

   OR

   Explain the SME manufacturing enterprise wheel.

2. a) What is the importance of standards in CAM.

   b) Write briefly on any one of the known standards.

   c) Briefly explain the requirements for a graphic data base.

   d) Describe some important features of EDM system.

   OR

   Explain the relevance of IGES in the Indian manufacturing scene.

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3. a) What is meant by 'sweep'.

   b) What do you understand by Geometric entities in relation to CAD.

   c) What is the best kind of modelling system.

   d) Explain different types of geometric modelling methods used in CAD. Give a comparative application of each of them.

   OR

   Compare Bezier curve and B splines for CAD application.

4. a) What do you understand by the term numerical control?

   b) How is the tool length compensation specified in a machining center?

   c) What type of looping facilities are available in CNC machine tool of the modern generation.

   d) Explain with neat sketch the operation of the canned cycle G81 as per ISO.

   OR

   What are the work-holding methods suitable for CNC machining center.

5. a) Why is group technology is more important in present manufacturing scenario.

   b) What is cellular manufacturing?

   c) Explain the concept of composite part with an example.

   d) Explain the MICLASS and DCLASS coding system used in Group technology.

   OR

   Briefly explain the methodology to be followed for developing a retrieval type of computer aided process planning system.

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