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BME-005

02529

BACHELOR OF TECHNOLOGY IN MECHANICAL ENGINEERING (COMPUTER INTEGRATED MANUFACTURING)

Term-End Examination

June, 2011

BME-005 : COMPUTER INTEGRATED MANUFACTURING

Time : 3 hours *Maximum Marks : 70*

*Note : Attempt **any five** questions.*

1. (a) What do you understand by CIM ? Explain any application of CIM, with suitable example. Also describe the potential benefits of CIM. **7+7**

   (b) Discuss the Scope of CIM in context of business, production and design.

2. (a) What do you mean by CAM, CAD/CAM and CIM ? Differentiate them. **7+7**

   (b) Describe the steps through, which electronic data transfer takes place from manufacturer to supplier.

3. (a) Describe in detail about the data carriers and input devices used in NC part programmes. 7+7

(b) List the various types of CNC machines advantages and limitations.

4. (a) Define flexibility. Describe any four types of flexibilities exhibited by manufacturing systems. 7+7

(b) What do you understand by coding and classification of parts in manufacturing environment ? Also explain the process of Monocode system, its advantages and disadvantages.

5. (a) Explain about all the elements of descrete event simulation. 7+7

(b) What is Computer aided process planning ? Briefly describe the knowledge based process planning.

6. (a) Briefly explain the basic principle of production and inventory control for CIM system. 7+7

(b) What do you understand by extended enterprise ? Also explain the role of internet on extended enterprise.

7. (a) Define simulation. Discuss the advantages and limitations of computer simulation. 7+7

(b) What is sensor ? What are the two types of sensors and how they differ from each other ? Explain.

8. (a) What is database management system ? Describe the features of distributed data base management system. 7+7

(b) Describe the role of information system in automated factory.