

00235

**BACHELOR OF TECHNOLOGY IN  
MECHANICAL ENGINEERING  
(COMPUTER INTEGRATED  
MANUFACTURING)**

**Term-End Examination**

**June, 2012**

**BME-005 : COMPUTER INTEGRATED  
MANUFACTURING**

*Time : 3 hours*

*Maximum Marks : 70*

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*Note : Attempt any five questions.*

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1. (a) Discuss the concept of CIM Wheel and Explain the importance of integrating of the enterprise. **7+7**
- (b) What do you understand by CAM, CAD/CAM and CIM ? Differentiate them.
2. (a) Enlist the steps involved in automation of an inspection procedure in an Industry. **7+7**
- (b) What are the various types of AS/RS ? Briefly explain their features and applications.
3. (a) Define NC and CNC. Describe the six elements of a CNC system. **7+7**
- (b) Define the tool slot index, priority index and machine time index.

4. (a) Define cellular manufacturing system ? 7+7  
What are the features of a cellular manufacturing system ?
- (b) What are the elements of FMS ? What are the benefits of FMS ? Explain.
5. (a) What is generative process planning ? 7+7  
Compare variant and generative process planning methodologies.
- (b) What are the steps involved in construction of simulation model ? Explain.
6. (a) Why is Master Production Schedule (MPS) 7+7  
important ? What is the significance of Bill Of Materials (BOM) ?
- (b) What do you understand by extended enterprise and what role internet has played in it ?
7. (a) What is sensor ? What are the different 7+7  
components of a sensing system ?
- (b) Define the terms Barcode, Transponders and Vision system. What are the main functions of a Vision system ?
8. (a) Describe the role of Information System in 7+7  
automated factory.
- (b) What are the different trends in manufacturing ? What will be the impact of future automated factory on labour ?
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