

B.Tech. MECHANICAL ENGINEERING
(COMPUTER INTEGRATED
00270 MANUFACTURING)

Term-End Examination

June, 2016

BME-005 : COMPUTER INTEGRATED
MANUFACTURING

Time : 3 hours

Maximum Marks : 70

Note : Attempt any five questions.

1. (a) Discuss the concept of CIM wheel. What are the benefits of CIM ? 7
- (b) Discuss the scope of CIM in the context of business, production and design. 7
2. (a) What are the various types of AS/RS ? Briefly explain their features and applications. 7
- (b) Describe any one type of AGVs control method. 7

3. (a) Define the tool slot index, priority index and machine time index. 7
- (b) What are the different types of CNC machines ? Also write the advantages and limitations of CNC machines. 7
4. (a) Describe cellular manufacturing system and its features. 7
- (b) What do you understand by machine loading ? What are the main objectives of machine loading ? 7
5. (a) Explain any one simulation package used in modelling FMS. 7
- (b) Briefly discuss the various steps in developing a simulation model of production system. 7
6. (a) Briefly describe the 'computer-aided process planning'. 7
- (b) Explain in brief 'Manufacturing Resource Planning (MRP-II)'. 7

7. (a) What are the differences between static and dynamic simulation models ? 7
- (b) Explain in brief 'Tabu search' optimization method. 7
8. (a) Describe the different types of database management systems. 7
- (b) What are the different social and economic factors which promote the developments of automated industry ? 7
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