BME-012

BACHELOR OF TECHNOLOGY IN MECHANICAL ENGINEERING (COMPUTER INTEGRATED MANUFACTURING)

02364

Term-End Examination

December, 2010

BME-012 : MANUFACTURING SYSTEMS, INTEGRATION AND CONTROL

Time : 3 hours   *Maximum Marks : 70*

*Note :   Attempt **any FIVE** questions of the following.*

1. (a)   What is automation ? Discuss three basic   7
          elements of automation.

    (b)   What are the different types of databases   7
          used for manufacturing control system ?

2. (a)   Discuss CIM database and Multi objective   7
          decision support system.

    (b)   What is shop floor control ? Describe its   7
          various phases in detail.

3. (a)   Explain mars customisation with the help   7
          of a suitable example.

    (b)   Explain the various methods to achieve   7
          mars customisation.

4. (a) What do you understand by an agent based 7
manufacturing system ? Explain all its key
issues.

(b) What is agile manufacturing system ? 7
Describe various enablers of an agile •
manufacturing system with the help of
appropriate examples.

5. (a) What is AGV scheduling ? Where is it used? 7
Give some features of AGV scheduling.

(b) Define machine routing. How is the process 7
of dynamic M/C routing different from
traditional routing system ? Explain in
detail.

6. (a) Define Supply Chain Management (SCM). 7
Discuss various components of a 4 member
supply chain.

(b) What do you understand by quality ? How 7
can quality be ensured through statistical
quality control ?

7. (a) What are the advantages of an object 7
oriented programming over a conventional
programming language ?

(b) What is knowledge management ? Briefly 7
describe general issues of knowledge
representation.

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