BACHELOR OF TECHNOLOGY IN MECHANICAL ENGINEERING (COMPUTER INTEGRATED MANUFACTURING)

00635

Term-End Examination

December, 2010

BME-023 : ADVANCED MANUFACTURING TECHNOLOGY

Time : 3 hours   *Maximum Marks : 70*

Note : *Answer any seven questions.*

1. (a)   Define Concurrent Engineering. What are   5
          the objectives of Concurrent Engineering ?

    (b)   Briefly Explain the importance of design   5
          activities in product development process.

2. (a)   In product development process, when   5
          could the design for X methodologies be
          used judiciously by the designers ?

    (b)   Explain the various steps involved in DFMA   5
          process.

3. (a)   Briefly describe the importance of design for   5
          aesthetics.

    (b)   Explain how QFD is relevant for   5
          organisations ?

4. Explain the foundation model of concurrent **10**
Engineering with a neat diagram.

5. (a) What is voice of customer ? Explain the **5**
various methods of gathering the voice of
customer.

(b) Explain the Kano's Model with suitable **5**
diagram.

6. (a) Define Rapid prototyping and what are the **5**
main applications of Rapid prototyping ?

(b) What is stereolithography ? How it is **5**
working ?

7. Explain the working of Laser Engineered Net **10**
Shaping (LENS) with the help of a neat sketch.

8. (a) What is Rapid Tooling ? Enumerate the **5**
direct rapid tool production methods.

(b) How does reverse Engineering differ from **5**
other types of Engineering ?

9. Write short notes of **Any two** :

(i) Topographic Shape Formation (TSF) **5**

(ii) Nano manufacturing. **5**

(iii) Nickel electroforming. **5**