B.Tech. MECHANICAL ENGINEERING (COMPUTER INTEGRATED MANUFACTURING)

□□342   Term-End Examination

June, 2018

BME-023 : ADVANCED MANUFACTURING TECHNOLOGY

Time : 3 hours   *Maximum Marks : 70*

Note : *Attempt any* **seven** *questions. All questions carry equal marks.*

1. What is net shape manufacturing ? What are the advantages of net shape manufacturing ? Discuss the methods of net shape manufacturing.   *10*

2. Explain any two micro-fabrication processes.   *10*

3. What is hybrid manufacturing ? Explain hybrid process of Hybrid Plasma Deposition and Milling (HPDM) by giving flow chart.   *10*

4. What is sequential engineering ? Discuss the weaknesses of sequential engineering approach.   *10*

5. Briefly explain the term Design For Manufacturing (DFM). Discuss DFM implementation guidelines. *10*

6. Explain the working of Selective Laser Sintering (SLS) with the help of a diagram. *10*

7. What are direct and indirect methods of rapid tooling production ? Explain by giving example of each. *10*

8. What are contact and non-contact techniques of data capture in reverse engineering ? Explain by giving an example of each. *10*

9. Write short notes on the following : *10*

(a) TCP/IP Protocol

(b) Agent-Based Systems and Protocols

10. Describe integrated e-manufacturing system. *10*

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