

00327

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

Term-End Examination

June, 2013

**BME-023 : ADVANCED MANUFACTURING
TECHNOLOGY**

Time : 3 Hours

Maximum Marks : 70

Note : All questions carry equal marks. Answer any seven questions.

1. What are the different applications of Near Net Shape manufacturing in Advance Manufacturing Technology ? 10

2. With neat sketch, explain LIGA Microfabrication Process. What are the advantages and disadvantages of LIGA process ? 10

3. What is hybrid manufacturing system ? Explain the Hybrid process of HPDM (Hybrid Plasma Deposition and Milling). 10

4. Define Concurrent Engineering. What are the objectives of Concurrent Engineering ? Explain the advantages of Concurrent Engineering approach. 10
5. Briefly describe the importance of that concept of design for 'X'. Explain the various phases of product development process. 10
6. What are different Rapid Prototyping Technologies ? Explain with neat diagram, stereolithography(SLA) process. 10
7. Describe in brief, with the help of block diagram, the conversion of 3D scanned data to CAD model. 10
8. Why is Internetworking Standard essential in web based manufacturing ? What are the requirements of machine tools to be connected to each other in an Integrated environment ? 10
9. What do you mean by Parallel Kinematic NC machine (PKMs) ? What are advantages of PKMs ? Differentiate between PKMs and Serial machines. 10
10. Write short note on : 5x2=10
 - (a) Spray metal Deposition
 - (b) Steps of Shell Investment Casting
