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BME-023

01487

BACHELOR OF TECHNOLOGY IN MECHANICAL ENGINEERING (COMPUTER INTEGRATED MANUFACTURING)

Term-End Examination

June, 2011

BME-023 : ADVANCED MANUFACTURING TECHNOLOGY

Time : 3 hours *Maximum Marks : 7(*

Note : *Answer **any seven** questions.*

1.	(a)	Define concurrent Engineering. Write two applications of concurrent Engineering.	5
	(b)	Discuss about the projected growth of ceramic near net shape manufacturing.	5
2.	(a)	Describe the two micro - machining process and their application.	5
	(b)	Define Rapid prototyping (RP). List out the advantages and disadvantages of rapid prototyping.	5
3.	(a)	Briefly describe the principles of Design for production.	5
	(b)	Explain the various phases of QFD process.	5

4. Explain the working of Selective Laser sintering (SLS) with neat sketch. **10**

5. (a) Describe the process of 3D printing with neat sketch. **5**

   (b) What are the advantages and disadvantages of the ACEs Injection moulding process ? **5**

6. (a) Explain direct metal tooling process using 3 -DP with neat sketch. **5**

   (b) Explain various steps involved in vacuum casting with neat sketch. **5**

7. (a) Describe 3-D keltool process. What are the advantages of 3-D keltool process ? **5**

   (b) Explain the various stages involved in the reverse Engineering process. **5**

8. Explain the conversion of 3D scanner data to CAD model with block diagram. **10**

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

   (a) Direct and Indirect rapid tooling process **5**

   (b) Spray metal depocition **5**

   (c) Netscape Manufacturing **5**
