Reg. No. : .....

Name : .....

Sixth Semester B.Tech. Degree Examination, May 2016 (2008 Scheme)

08.606.13 : Advanced Manufacturing Processes (MU)

Time: 3 Hours

Max. Marks: 100

Instruction: Answer all questions from Part – A and one full question from each Module in Part – B.

## PART-A

- 1. Explain evaporative pattern casting.
- 2. Describe slush casting.
- 3. Write short note on the effect of rapid solidification for amorphous alloys.
- 4. Explain isostatic pressing.
- 5. Describe selective laser sintering.
- 6. Explain Thermoforming process.
- 7. Explain MEMS.
- 8. Write short note on SCREAM.
- 9. Explain LIGA micro fabrication process.
- 10. Describe wire bonding and packaging.

TRIVANDRUM-11

TRIVANDRUM-11

TRIVANDRUM-11

TRIVANDRUM-11

(10×4=40 Marks)

PART-B

Module - I

- 11. a) Explain various methods of powder production.
  - b) Describe various sintering methods.

10

OR

## 12. a) Explain metal injection moulding process. b) Explain the uses and advantages of ceramic moulds. 10 Module – II 13. Explain various manufacturing methods for plastics. OR 14. a) Briefly explain stereo lithography and selective laser machining. b) Explain Direct manufacturing and rapid tooling. Module – III 15. a) Explain various etching process. 10

10

10

10

b) Describe diffusion and ion implementation in lithography.

b) Describe silicon micro machining by single step plasma etching.

OR

16. a) Explain various micro machining methods.