



Reg. No. :

Name :

**Sixth Semester B.Tech. Degree Examination, March 2015
(2008 Scheme)**

08.606.13 : ADVANCED MANUFACTURING PROCESSES (MPU)

Time : 3 Hours

Max. Marks : 100

- Instructions :** i) Answer **all** questions from Part – A.
ii) Answer **one full** question from **each** Module in Part – B. Each carries **20** marks.

PART – A



1. Explain briefly on slush casting.
2. What are the basic steps in producing a powder metallurgy part ?
3. Give an account on applications of powder metallurgy.
4. What are the characteristic features of ceramic moulds ?
5. Distinguish between transfer moulding and foam moulding.
6. Prepare a short note on stereo lithography.
7. Enumerate the principle of laminated object manufacturing.
8. Explain briefly on Lithography.
9. What do you mean by SCREAM ?
10. What are the merits and demerits of LIGA micro fabrication process ? **(10x4=40 Marks)**



PART – B

Module – I

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|-----|--|----|
| 11. | a) Give an account on Recent Developments in Casting Technology. | 10 |
| | b) Explain the important methods for manufacturing metal powders. | 10 |
| 12. | a) Discuss briefly the process of vacuum casting. | 10 |
| | b) What are the various characteristics of pressureless compaction ? | 10 |

Module – II

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|-----|---|----|
| 13. | a) Explain the basic types of processes for compression moulding. | 10 |
| | b) Discuss the process of fabricating a thermoplastic bottle. | 10 |
| 14. | a) What do you mean by Rapid phototyping ? Explain. | 10 |
| | b) Explain on Laminated object manufacturing . | 10 |

Module – III

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|-----|---|----|
| 15. | a) Enumerate on various advantages and applications of MEMS along with a block diagram. | 10 |
| | b) Describe briefly on solid free form fabrication. | 10 |
| 16. | Prepare short notes on following : | |
| | a) PCB. | |
| | b) SIMPLE. | |
| | c) Ion implementation. | |
| | d) Water preparation. | |



(4x5=20 Marks)