



(Pages : 2)

A – 3810

Reg. No. :

Name :

**Seventh Semester B.Tech. Degree Examination, June 2016
(2008 Scheme)**

08.706.12 : NON-CONVENTIONAL MACHINING TECHNIQUES (MPU)

Time : 3 Hours

Max. Marks : 100

- Instructions :** 1) **Part A** : Answer **all** questions.
2) **Part B** : Answer **any one full** question from **each** Module.

PART – A

1. What are the importances of unconventional machining ?
2. Explain the classification of unconventional machining according to major energy source employed.
3. Give the product applications of EDM.
4. Mention the salient features of USM.
5. Contrast LBM and EBM.
6. Describe the commonly used gas mixture in PAM and their corresponding work materials.
7. What are the properties required for dielectric fluid for EDM ?
8. What is the purpose of vacuum chamber in EBM process ?
9. What is the principle of WJM ?
10. Enumerate the applications of ECH process. **(10×4=40 Marks)**



**PART – B
Module – I**

11. i) List the commonly used abrasive powder for tooling of USM and enumerate their properties. 5
ii) With the help of neat schematic, explain the operation of USM process. 15
- OR
12. i) Explain the principle of working of wire cut EDM process with a neat sketch. 15
ii) What are the advantages and disadvantages of EDM process ? 5

P.T.O.

**Module – II**

13. i) Describe the principle and operation of ECG and ECH. 15
ii) Discuss about the process parameters that influences the ECM process. 5

OR

14. i) Explain any one method of producing laser. 15
ii) Enumerate the advantages, limitations and applications of LBM. 5

Module – III

15. i) Classify various transducers used in USM setup and list out specific characteristics of each one of them. 5
ii) Explain the USM machine setup and discuss various feed mechanisms. 15

OR

16. i) With a neat schematic, explain the WJM process. 10
ii) Explain the process parameters in Water jet machining process. 10

