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Reg. No. : .....

Name : .....

Seventh Semester B.Tech. Degree Examination, October 2014
(2008 Scheme)
08.706.12 : NON CONVENTIONAL MACHINING TECHNIQUES (M)

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**.*

PART – A

1. Explain how AJM is different from WJM.
2. What is the operating principle of EDM ? Explain.
3. Briefly describe the process parameters which affect EDM.
4. What are the limitations of ECG ?
5. Write short notes on beam control in LBM.
6. Sketch the gun used for EBM and mark the parts.
7. Write down the applications of AJM.
8. Describe the specific advantages of USM when compared to other processes.
9. Explain the basic working principle of wire cut EDM.
10. Write short notes on ECH. **(10×4=40 Marks)**

P.T.O.

PART – B

Module – I

11. Explain in detail the different types of dielectric fluids and electrode materials based on the base material used in EDM. Also discuss the advantages of EDM. **20**

OR

12. Discuss the latest developments in EDM. What are the different variables on which the metal removal rate depends on ? What is the effect of electrode material in EDM process ? **20**

Module – II

13. Describe the operating principle and working of ECM using a sketch. Also discuss the effect of current intensity and electrolyte on the metal removal rate. **20**

OR

14. Explain in detail vacuum and non-vacuum techniques in EBM. Write down the specific applications of EBM. **20**

Module – III

15. With the help of a neat sketch explain the basic principle and operating mechanism of WJM. What are its advantages and limitations ? **20**

OR

16. a) What is the working principle of USM ? Discuss the working of USM with a figure. **10**

    b) Describe the process parameters and limitations of AJM. **10**