

Code: ME7T3

IV B.Tech - I Semester – Regular Examinations – November 2015

**ADVANCED MACHINING PROCESSES
(MECHANICAL ENGINEERING)**

Duration: 3 hours

Max. Marks: 70

Answer any FIVE questions. All questions carry equal marks

1. a) What is necessity for unconventional machining processes?
7 M
- b) Explain the factors that should be considered during the selection of an appropriate un-conventional machining process for a given job. 7 M
2. a) Discuss the influence of process parameters and applications of USM. 7 M
- b) Give a note on the economic considerations of USM. 7 M
3. a) Explain the mechanism of metal removal rate in AJM.
7 M
- b) With neat sketch explain the process of AJM. List its application and limitations. 7 M

4. a) Explain the classification and characteristics of various spark erosion generators. 7 M
- b) With help of neat sketch describe the mechanism of material removal in EDM. 7 M
5. a) Describe the process of electrochemical machining. 7 M
- b) Discuss about the electro-chemical honing and electro-chemical grinding. 7 M
6. a) Discuss the process parameters of EBM and their influence on machining quality. 7 M
- b) Discuss how the process variables in EBM influence MRR, and pattern generation. 7 M
7. Explain in detail chemical machining process. 14 M
8. a) Explain abrasive flow finishing. 7 M
- b) State the advantages, disadvantages and applications of shaped tube electrolytic process. 7 M