

Code No: 09A70309

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, June/July - 2014

UNCONVENTIONAL MACHINING PROCESSES

(Mechanical Engineering)

Time: 3 Hours

Max. Marks: 75

Answer any Five Questions  
All Questions Carry Equal Marks

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- 1.a) Define unconventional machining process and state its applications.
- b) Explain various forms of energy sources in unconventional machining process.
- 2.a) Write advantages, disadvantages and applications of USM (Ultrasonic Machining).
- b) What is the function of concentrator? Write various types of feed mechanisms.
- 3.a) What is water jet machining process? What are its main applications?
- b) Write various industrial applications of abrasive jet machining.
- 4.a) With the help of neat diagram explain the process of electro chemical grinding.
- b) What are the advantages and disadvantages of ECM (Electrochemical Machining)?
- 5.a) Explain the principle and operation of electric discharge grinding with neat diagram.
- b) Explain the mechanism of metal removal in EDM process.
- 6.a) Write the advantages and disadvantages of EBM.
- b) Distinguish between EBM and LBM process.
- 7.a) What is plasma arc machining? Explain its principle and operation.
- b) Explain metal removal mechanism in plasma arc machining.
- 8.a) Explain the process parameters involved in shaped tube electrolytic machining.
- b) Distinguish Abrasive flow finishing and Magnetic abrasive finishing stating advantages and disadvantages.

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