

Code No: 57030

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, December - 2014

UNCONVENTIONAL MACHINING PROCESSES

(Mechanical Engineering)

Time: 3 Hours

Max. Marks: 75

**Answer any Five Questions
All Questions Carry Equal Mark**

1. Give the complete classification of the unconventional machining processes and explain the factors to be considered for the selection of a process.
- 2.a) Describe the structure of the transducer in an ultrasonic machine.
b) Explain the economic considerations of ultrasonic machining.
3. With the help of neat sketches explain the constructional details of the equipment used in water jet machining. Also, explain the applications and limitations of water jet machining.
- 4.a) Discuss the tool design aspects in electrochemical machining.
b) Explain the advantages of chemical machining.
- 5.a) Explain the working of an R-L-C circuit of electric discharge machine.
b) Explain the characteristics of spark eroded surface.
6. With the help of neat diagram explain the construction, working and applications of electron beam machine.
- 7.a) Explain the characteristics of various maskants used in chemical machining.
b) Comment about the accuracy levels in plasma machining.
8. With the help of neat diagram explain the construction, working and applications of magnetic abrasive finishing.

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