

Code No: 57030

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JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year I Semester Examinations, February/March - 2016

UNCONVENTIONAL MACHINING PROCESSES

(Mechanical Engineering)

Time: 3 Hours

Max. Marks: 75

Answer any Five Questions  
All Questions Carry Equal Marks

- 1.a) What are the main parameters to be considered while selecting a particular machining process and why?  
b) State the need of unconventional machining process. [8+7]
- 2.a) Explain the principle of ultrasonic machining with the help of a neat diagram.  
b) Explain the various process variables involved in USM. [8+7]
- 3.a) What is abrasive jet machining process? Explain its principle and operations.  
b) Explain the mechanism of material removal in AJM. [8+7]
- 4.a) Explain with neat sketch of electro chemical honing.  
b) What are the advantages and disadvantages of ECG? [7+8]
- 5.a) Explain general principle and applications of electric discharge machining.  
b) Explain principle and applications of wire EDM. [7+8]
- 6.a) What is laser beam machining? Explain its principle and operation.  
b) Distinguish between thermal and non thermal process in EBM. [8+7]
- 7.a) Write applications of PAM in manufacturing industries.  
b) Describe the process of chemical machining. [8+7]
- 8.a) Explain the process principles and applications of shaped tube electrolytic machining.  
b) Explain the various process parameters involved in Electro stream drilling. [8+7]

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