

**R16**

Code No: 138FA

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech IV Year II Semester Examinations, September - 2020

UNCONVENTIONAL MACHINING PROCESSES

(Mechanical Engineering)

Time: 2 Hours

Max. Marks: 75

Answer any Five Questions  
All Questions Carry Equal Marks

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1. Describe the constructional details of the horn of ultrasonic machine. [15]
- 2.a) Give the complete classification of non-traditional machining processes. [8+7]  
b) Discuss the recent developments in ultrasonic machining.
3. Derive an equation for metal removal rate in ECM. [15]
4. What are the applications and limitations of water jet machining? [15]
- 5.a) Examine the role of dielectric liquid in sustaining the sparking in EDM. [8+7]  
b) Derive equation for surface finish in EDM.
6. Draw the R-L-C circuit and explain its role in control of pulses in EDM. [15]
7. Explain the generation, control and use of electron beam for machining. [15]
8. With the help of a neat sketch explain the features, applications and advantages of magnetic abrasive finishing. [15]

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