

R18

Code No: 156DC

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

B. Tech III Year II Semester Examinations, August/September - 2021

UNCONVENTIONAL MACHINING PROCESSES

(Common to ME, MCT)

Time: 3 Hours

Max. Marks: 75

Answer any five questions
All questions carry equal marks

1.a) Classify the conventional machining process on the type of energy employed in detail.
b) Briefly explain the effect of operating parameters on material removal rate in Unconventional Machining Process. [7+8]

2.a) What are the various aspects to be considered while selecting a UCM process?
b) Explain the reasons for the development of Unconventional Machining Process. [7+8]

3.a) With neat sketch, explain the process of AJM and list its applications.
b) Discuss about the electrochemical honing and deburring process. [7+8]

4.a) Explain the principle of working Electro Chemical Grinding and write its applications.
b) Explain the principle of AWJM. Mention some of the specific applications. [8+7]

5. With help of a neat sketch, describe the mechanism of material removal in EDM process. [15]

6.a) Explain the working principle, elements and characteristics of wire EDM process.
b) State the recent developments in EDM and Wire cut EDM in detail. [8+7]

7.a) Discuss the process parameters of EBM and their influence on machining quality.
b) Explain the production of laser beam and working principle of LBM process in detail. [7+8]

8.a) List out various maskants used in chemical machining and explain their merits in detail.
b) State the principle of magnetic abrasive finishing process and explain it briefly. [8+7]

—ooOoo—