## ADAMAS UNIVERSITY PURSUE EXCELLENCE

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### **END-SEMESTER EXAMINATION: JANUARY 2021**

UNIVERSITY PURSUE EXCELLENCE	(Academic Session: 2020 – 21)		
Name of the Program:	B Tech	Semester:	VII
Paper Title :	Elective –V (Non Traditional Manufacturing)	Paper Code:	EME44105
Maximum Marks :	40	Time duration:	3 Hours
Total No of questions:	8	Total No of Pages:	1
(Any other information for the student may be mentioned here)	Group A is compulsory, any three questions from Group B and any two from Group C		

# Answer all the Groups Group A

Answer all the questions of the following

 $5 \times 1 = 5$ 

- **1. a)** What is spark erosion machining?
  - **b**) Give examples of WEDM tool material.
  - c) How mechanical vibrations in USM is produced?
  - **d)** What is Plasma?
  - e) AFM belongs to which energy domain?

#### **GROUP-B**

Answer *any three* of the following

 $3 \times 5 = 15$ 

- **2.** Classify Non Traditional Machining Processes.
- **3.** Explain Plasma generation Process. Write the principle of PAM. (3+2)
- **4.** Write different process parameters of USM process with justification.
- **5.** Explain the working principle of EBM with a neat sketch.

### **GROUP-C**

Answer *any two* of the following

 $2 \times 10 = 20$ 

- **6.** What is unconventional machining process? Explain the reason why the unconventional machining processes are used? Give a comparison of the unconventional process in terms of process, MRR and application. (2+3+5)
- 7. What is WEDM? Write down the working principle of WEDM process with a neat sketch. (2+8)
- 8. State the advantages and disadvantages of LBM process with some specific application. Give some examples of Lasing material. (8+2)