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GIET UNIVERSITY, GUNUPUR – 765022
 Ph.D. (Second Semester) Examinations, April – 2024
PPEME2029 - Modern Machining Processes
 (Mechanical)

Time: 3 hrs

Maximum: 70 Marks

The figures in the right-hand margin indicate marks.

Answer ANY FIVE Questions**(14 x 5 = 70 Marks)**

	Marks
1.a. Explain construction and working of USM with advantages, disadvantages and applications.	7
b. Explain the mechanism of material removal in USM and write about process parameters in USM.	7
2.a. Explain the factors that should be considered during the selection of an appropriate unconventional machining process for a given job.	7
b. Explain the need for the development of Unconventional Machining Process by considering any four simple cases of your own interest.	7
3.a. Explain construction and working of AJM with advantages, disadvantages and applications.	7
b. Explain construction and working of AWJM with advantages, disadvantages and applications.	7
4.a. Write process parameters, process variables and MRR of AJM.	7
b. Difference between WJM and AJM.	7
5.a. Explain with neat sketch construction and working of ECM give its advantages, disadvantages and applications.	7
b. Explain construction and working of deburring process with advantages, disadvantages and applications.	7
6.a. Explain construction and working of ECG with advantages, disadvantages and applications.	7
b. Briefly discuss about the effect of high temperature and pressure of electrolyte on the ECM process.	7
7.a. Explain the following in EDM with neat sketch i) Electrode feed control system	7
b. With a neat sketch, describe the mechanism of material removal in EDM.	7
8.a. Difference between EBM and LBM.	7
b. List the general guidelines for designing the plasma torch.	7

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