CCode No.: ME511PE

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CMR ENGINEERING COLLEGE: : HYDERABAD
UGC AUTONOMOUS
III–B.TECH–II–Semester End Examinations (Regular) - May- 2023
UNCONVENTIONAL MACHINING PROCESSES
(MECH)

[Time: 3 Hours] **[Max. Marks: 70]**

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 20 marks. Answer all questions in Part A.
Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART-A **(20 Marks)**

1.	a)	What do you mean by Unconventional machining process?	[2M]
	b)	List down various mechanical energy based Unconventional machining processes?	[2M]
	c)	What are the various applications of AJM?	[2M]
	d)	What are the advantages of ECM?	[2M]
	e)	List down the various applications of EDM?	[2M]
	f)	What are the dielectric fluids commonly used in EDM?	[2M]
	g)	Write the differences between LBM and EBM?	[2M]
	h)	What is the principle of LBM?	[2M]
	i)	What are the materials used to make the tool electrode in ECM?	[2M]
	j)	Describe commonly used gas mixture in PAM?	[2M]

PART-B **(50 Marks)**

2.	Explain briefly need for development of unconventional machining processes?	[10M]
	OR	
3.	Explain the working principle of Ultra Sonic Machining with neat sketch write its advantages and limitations?	[10M]
4.	Describe the principle and equipment for AJM with neat sketch?	[10M]
	OR	
5.	Explain the principle of working, equipment's, Applications, and drawbacks of Electro chemical machining?	[10M]
6.	Explain the Wire EDM process and list its advantages, disadvantages and applications?	[10M]
	OR	
7.	Explain Electric discharge Grinding processes with neat sketch?	[10M]
8.	Explain working principle of LBM processes with neat sketch?	[10M]
	OR	
9.	Explain working principle of EBM processes with neat sketch?	[10M]
10.	Describe PAM process with neat sketch and write about its process parameters, applications?	[10M]
	OR	
11.	Explain the principle of working, equipment's of ECM?	[10M]

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