 On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice. 	
Important Not	



USN		8				

10ME665

Sixth Semester B.E. Degree Examination, June/July 2018 Non Traditional Machining

Time: 3 hrs.

Max. Marks: 100

		Note: Answer any FIXE full questions, selecting	
		atleast TWO questions from each part.	
		PART - A	
1	a.	How do you classify Non-traditional Machining processes? Discuss briefly.	(08 Marks)
-	b.	Compare the Traditional and Non-Traditional machining processes.	(06 Marks)
	c.	Write a short note on Abrasive slurry.	(06 Marks)
2	a.	With a neat sketch, explain the working principle and operation of USM process.	(08 Marks)
	b.	Discuss the effects of the following parameters on MRR applicable to USM proces	S:
		(i) Amplitude and frequency of vibration.	
		(ii) Applied static load.	(9)
		All hallo of workhardness to roof hardness.	(06 Marks)
	5.	Mention any two advantages, disadvantages and applications of USM process.	(06 Marks)
<	100	The second of AIM process of	(08 Marks)
3	\a.	With a neat sketch, explain the working principle and operation of AJM process	(06 Marks)
20	b.	Derive an expression for MRR of brittle materials in case of AJM process. Mention any two advantages, disadvantages and applications of Water Jeep Materials in case of AJM process.	
9/	C.	V .4131	(06 Marks)
		process.	
4	a.	Briefly explain the electrolytes used in ECM process.	(08 Marks)
	b.	Briefly explain the Chemical Reactions that occur in ECM process.	(06 Marks)
	c.	With a schematic diagram, explain the Electro-Chemical Honing process.	(06 Marks)
		$\underline{PART} - \underline{B}$	
5	a.	List out the various process parameters and briefly explain their effects on	Chemical
		Machining process.	(08 Marks)
	b.	With the help of a flow chart, briefly explain the Chemical Milling process.	(06 Marks)
	c.	Write a short note on Chemical Blanking.	(06 Marks)
			(00.75 1.)
6	a.	With a neat sketch, briefly explain the Reed control in EDM process.	(08 Marks)
	b.	What is flushing? Explain any two methods of flushing in EDM process.	(06 Marks)
	c.	What are the requirements of Dielectric fluid? Mention any two dielectric fluid	(06 Marks)
		EDM process.	(00 Marks)
7	0	With a neat sketch, explain the working principle of ECG process.	(08 Marks)
/	a. b.	With a neat sketch briefly explain the PAM process.	(06 Marks)
	c.	Discuss some of the important considerations in the design of Plasma Torch in PA	.M.
	О.	Discuss some of Milita	(06 Marks)
		With a neat sketch, briefly explain the principle and working of Laser Beam	Machining
8	a.		(08 Marks)
	1.	with a near sketch, briefly explain the principle and working of Electron Beam M	,
	b.		(UU IVIAI KS)
	c.	Mention any two advantages, disadvantages and applications of Laser Beam Macl	nining.
	٠.		(06 Marks)