Q.P. Code: 19ME0326 **R19**

Reg. No: | | | | | | | | | | |

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR

(AUTONOMOUS)

B.Tech IV Year I Semester Regular Examinations November/December-2022

MODERN MACHINING METHODS

(Mechanical Engineering)

Time: 3 hours Max. Marks: 60

(Answer all Five Units **5 x 12 = 60** Marks)

UNIT-I

1	a	Explain the need for Modern Machining Methods	L2	6M
	b	What are the advantages of Non-Traditional Machining Methods	L1	6M
		OR		
2	a	Illustrate a neat sketch, and explain the working process of the Ultrasonic Sonic Machining Process (USM).	L4	6M
	b	Mention advantages and disadvantages of the Ultrasonic Machining Process.	L2	6M

UNIT-II

3	a	List the advantages and disadvantages of EDM (Electrical Discharge Machining).	L2	6M
	b	Lists the Applications of EDM (Electrical Discharge machining).	L2	6M
		OR		
4	a	What is flushing, and explain any two methods of flushing in the EDM Process.	L3	6M
	b	What are the functions of dielectric fluid in EDM (Electrical Discharge Machining).	L3	6M

UNIT-III

5	a	What are the different types of electrolytes used in Electro Chemical Machining (ECM)?	L1	6M
	b	Discuss the surface finish, accuracy and economic aspects of Electro Chemical Machining (ECM).	L1	6M
		OR		
6	a	Explain the working principle of the Electro-Chemical Honing (ECH) Process with a schematic diagram and specify the parameters.	L2	6M
	b	Write the advantages, disadvantages and applications of Electro Chemical Honing (ECH).	L2	6M

UNIT-IV

7		Draw the schematic layout of Electron Beam Machining (EBM) set up and explain the major elements in it.	L1	12M
		OR		
8		Write the advantages, disadvantages Electron Beam Machining (EBM).	L2	12M

UNIT-V

9		Discuss briefly about the need of Micro fabrication Techniques, it's advantages, disadvantages and applications.	L2	12M
		OR		
10		Explain about the Micro Fabrication Technique - Lithography with neat Lithography flow diagram.	L1	12M

***** END *****

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