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SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech IV Year I Semester Supplementary Examinations June-2024
MODERN MACHINING METHODS
(Mechanical Engineering)

Time: 3 Hours **Max. Marks: 60**

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

UNIT-I

1		Discuss the Modern Machining Methods with their applications in the current industry.	**CO1**	**L2**	**12M**
		OR			
2	a	Illustrate a neat sketch, and explain the working process of the Ultrasonic Sonic Machining Process (USM).	**CO1**	**L4**	**6M**
	b	What are the advantages of Non-Traditional Machining Methods?	**CO1**	**L1**	**6M**

UNIT-II

3		Explain the working principle and machining process of EDM (Electrical Discharge machining) with a neat sketch.	**CO2**	**L3**	**12M**
		OR			
4	a	Explain the working principle of wire cut EDM.	**CO2**	**L3**	**6M**
	b	Give a brief note on applications of the Electrical Discharge Grinding (EDG) process.	**CO2**	**L2**	**6M**

UNIT-III

5		Discuss the need for Electro Chemical Machining (ECM) and its applications.	**CO3**	**L3**	**12M**
		OR			
6		Explain the principle of metal removal in the Electro Chemical Machining (ECM) process. Discuss the function of electrolytes in this process.	**CO3**	**L4**	**12M**

UNIT-IV

7		Draw the schematic layout of Electron Beam Machining (EBM) set up and explain the major elements in it.	**CO4**	**L5**	**12M**
		OR			
8		Discuss the applications and limitations of Laser Beam Machining (LBM).	**CO4**	**L4**	**12M**

UNIT-V

9		Explain about the Micro Fabrication Technique - Lithography with neat Lithography flow diagram	**CO5**	**L3**	**12M**
		OR			
10		Discuss briefly about the its advantages, disadvantages and applications.	**CO5**	**L4**	**12M**

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