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Reg. No: ☐☐☐☐☐☐☐☐☐☐

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech III Year I Semester Regular & Supplementary Examinations Nov/Dec 2019
MACHINE TOOLS
(Mechanical Engineering)

Time: 3 hours
Max. Marks: 60

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

UNIT-I

1	**a**	How can you classify cutting tools?	**6M**
	b	Define the single point cutting tool elements.	**6M**

OR

2	Explain the formation of chip. Discuss the types of chips with neat sketches.	**12M**

UNIT-II

3	**a**	Explain work done in metal cutting process.	**6M**
	b	Explain cutting speed, feed, and depth of cut.	**6M**

OR

4	Describe the factors affecting tool life and give Taylor' tool life equation.	**12M**

UNIT-III

5	Name the different types of the lathes? Discuss the importance of the each lathe.	**12M**

OR

6	**a**	List the common tools and attachments used on Turret and Capstan lathes.	**6M**
	b	List the Turret lathe operations and with neat sketch explain any one operation.	**6M**

UNIT-IV

7	**a**	What do you understand by the term "Boring"? How are boring machines classified?	**6M**
	b	Discuss briefly with a neat sketch of a horizontal boring machine.	**6M**

OR

8	Draw the block diagram of a horizontal milling machine and explain its various parts.	**12M**

UNIT-V

9	**a**	Define the terms: i) Grinding ii) Rough Grinding iii) Precision Grinding	**6M**
	b	How is "grinding" classified?	**6M**

OR

10	Give the comparison among Grinding, lapping and honing.	**12M**

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