SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech. III Year II Semester Regular &Supplementary Examinations June-2025
GENERAL MECHANICAL ENGINEERING
(Open Elective-II)

Time: 3 Hours   Max. Marks: 60

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

UNIT-I

1	a	Biomaterials plays a vital role in human life. Justify.	CO1	L4	6M
	b	Classify the conveyors used in power plants and explicate any one of the conveyor in detail.	CO1	L2	6M

OR

2	a	Describe the differences between ferrous and non ferrous metals.	CO1	L3	6M
	b	Describe various power transmission devices used in material handling.	CO1	L2	6M

UNIT-II

3		Define Automation? Explain different types of Automation used in the industry.	CO2	L2	12M

OR

4	a	Write a short note of the need of CAD and CAM.	CO2	L2	6M
	b	What is the Role of computers in manufacturing?	CO2	L1	6M

UNIT-III

5	a	With diagram Explain cylindrical and XYZ configurations.	CO3	L2	6M
	b	Define Robot?Describe in detail about Robot Anatomy.	CO3	L2	6M

OR

6	a	Compare the DNC and CNC machines operations in industry.	CO3	L3	6M
	b	Compare the Traditional and NC machining.	CO3	L3	6M

UNIT-IV

7	a	Classify Internal Combustion engines and write a detail note on that.	CO4	L4	6M
	b	Draw and discuss about valve timing diagram of four stroke petrol engine.	CO4	L4	6M

OR

8	a	Illustrate the importance and functions of Vehicle chassis.	CO4	L4	6M
	b	Identify the important components of an automobile and explain its functions.	CO4	L3	6M

UNIT-V

9		Illustrate the working of Vapour Absorption Refrigeration System with its merits and demerits.	CO5	L2	12M

OR

10	a	Differentiate between Window Air conditioning and Split Air conditioning systems.	CO5	L2	6M
	b	With neat diagram explain the working principle of Air conditioning system.	CO5	L2	6M

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