O.P.Code:23ME0320	R23	H.T.No.									

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR

(AUTONOMOUS)

B.Tech. III Year II Semester Regular Examinations April-2026

CAD/CAM

(Mechanical Engineering)

Time: 3 Hours **Max. Marks: 70**

PART-A

(Answer all the Questions **10 x 2 = 20** Marks)

1	a	Define CAD.	CO1	L1	2M
	b	List any two Common Hidden Surface Removal Algorithms.	CO1	L1	2M
	c	Name GM representation techniques.	CO2	L1	2M
	d	Write any four synthetic curves.	CO2	L1	2M
	e	Full form of DNC and MCU is.	CO3	L1	2M
	f	Define computer assisted part programming.	CO3	L1	2M
	g	Define GT.	CO4	L1	2M
	h	Write the primary benefits of GT?	CO4	L1	2M
	i	List the benefits of CAPP.	CO5	L1	2M
	j	Categorize the methods of CAPP.	CO5	L1	2M

PART-B

(Answer all Five Units **5 x 10 = 50** Marks)

UNIT-I

2	a	Discribe the CAD/CAM product cycle with neat sketch.	CO1	L1	5M
	b	Explain the product cycle and CAD/CAM product cycle.	CO1	L2	5M
		OR			
3	a	Explain briefly about the Components of CAD system.	CO1	L2	5M
	b	Illustrate the utilization of CAD in an Industrial Environment.	CO1	L2	5M

UNIT-II

4		Explain the Constructive Solid Geometry (CSG) method to create models.	CO2	L2	10M
		OR			
5	a	Define the solid modeling and Explain any one type of solid modeling.	CO2	L2	5M
	b	Compare 2-D and 3-D wire frame models.	CO2	L2	5M

UNIT-III

6	a	Briefly explain about NC Coordinate systems.	CO3	L2	5M
	b	Explain the various applications of NC and CNC system.	CO3	L2	5M
		OR			
7	a	Differentiate Manual part programming and Computer assisted part programming.	CO3	L2	5M
	b	Write about NC word and nodes.	CO3	L1	5M

UNIT-IV

8	a	Explain about production flow analysis (PFA).	CO4	L2	5M
	b	Write brief notes on Group Technology.	CO4	L1	5M
		OR			
9	a	Discuss the terminology used in quality control.	CO4	L2	5M
	b	Define the term CAQC and explain how it is implemented in production systems.	CO4	L1	5M

UNIT-V

10		Explain the Generative CAPP type system with a neat sketch.	CO5	L2	10M
		OR			
11	a	Write advantage and dis advantage of computer aided processes planning	CO5	L1	5M
	b	Explain about Machinability data systems.	CO5	L2	5M

***** END *****