



R20 Regulation

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

Subject code:3P7CB

(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech VII Semester Regular Examinations, November 2023

CAD/CAM

(Mechanical Engineering)

Maximum Marks: 70

Date:12.12.2023 Duration: 3 hours

- Note:
- 1.This question paper contains two parts A and B.
 2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Answer any one full question from each unit which carries 10M.
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks

(10x2M=20 Marks)

Bloom

		Bloom
1	What is geometric transformation?	Tx
2	Mention the functions of a graphic package.	L1
3	Name the two basic approaches followed in solid modeling.	L2
4	List out properties of B-Spline.	L1
5	Give the advantages of DNC machines.	L1
6	What is meant by G00 and M30 in CNC part programming?	L1
7	List the role of group technology in CAD/CAM integration.	L1
8	What is CAPP.	L2
9	Mention the types of data files required for an FMS.	L1
10	What is a flexible manufacturing cell?	L2

Part-B

Answer All the following questions.

(5X10M=50Marks)

11	Explain with block diagram, the CAD process with a suitable example. [10]	L2
	OR	
12	Differentiate between Bezier and B- spline surface with reference to number of control points, order of continuity and surface normal. [10]	L2
13	Discuss the various types of surface modeling and state the applications. [10]	L2
	OR	
14	Explain the constructive solid geometry technique. Discuss the role of primitive and Boolean operations in CSG with examples. [10]	L3
15	Explain the working and constructional features of CNC with a neat sketch. [10]	L2
	OR	
16	What is canned cycle? Explain any two drilling canned cycles with their syntax. [10]	L2
17	Define GT. Discuss the OPITZ coding system for GT. [10]	L2
	OR	
18	Give a detailed account of MRP and add a note on its benefits. [10]	L2
19	Write short notes: (a) Machine vision. (5) (b) Benefits of CIM. (5)	L3
	OR	
20	Describe the various aspects of FMS layout configurations. [10]	L2