Hall Ticket Number : ☐☐☐☐☐☐☐☐☐☐

Code: 19A371T

IV B.Tech. I Semester Supplementary Examinations November 2023

CAD/CAM
(Mechanical Engineering)

Max. Marks: 70   Time: 3 Hours

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Answer five questions by choosing one question from each unit (5 x 14 = 70 Marks)

		Marks	CO	BL

UNIT–I

1. a) Briefly explain the conventional process of the product cycle in conventional manufacturing environment. — 9M CO1 BL2

   b) Write short notes on i) Stroke writing ii) Raster Scan — 5M CO1 BL2

OR

2. What is meant by Concatenation Matrix? Demonstrate how translation; scaling and rotation operations can be performed simultaneously on a graphic element using Concatenation Matrix. — 14M CO1 BL3

UNIT–II

3. a) Differentiate between solid modeling and surface modelling methods. — 7M CO2 BL2

   b) With the help of neat sketches, describe the most commonly used solid entities. — 7M CO2 BL3

OR

4. a) What do you mean by blending function? Explain reparameterization of a surface. — 7M CO2 BL3

   b) Why the sweep representations are useful in creating solid models of 2D objects? — 7M CO2 BL3

UNIT–III

5. a) List and give the meaning of any five G and M codes functions. — 7M CO3 BL2

   b) Explain the principle of CNC system with a block diagram. — 7M CO3 BL2

OR

6. a) Write the procedure for writing computer assisted part programming? — 7M CO3 BL2

   b) Discuss any two types of statements used in APT part programming — 7M CO3 BL3

UNIT–IV

7. a) What are the main objectives of MRP (Manufacturing Resource Planning)? Explain them briefly. 7M CO4 BL3

   b) Write a short note on Retrieval type and Generative type of CAPP. 7M CO4 BL2

OR

8. a) Discuss how part classification is done in the context of GT. What are the essential attributes such a coding system should take care of? 7M CO4 BL2

   b) Elaborate briefly the MICLASS system of codification. 7M CO4 BL2

UNIT–V

9. Describe any two methods of non-contact type of computer aided testing. 14M CO5 BL3

OR

10. a) Mention the objectives of CAQC. Explain the different computer aided inspection methods. 7M CO5 BL2

    b) Summarize the enterprise resource planning and capacity requirements planning? 7M CO5 BL3

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