Code No:**R1641032** **R16** **Set No. 1**

IV B.Tech I Semester Supplementary Examinations, February- 2020

CAD/CAM

(Common to Mechanical Engineering and Automobile Engineering)

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

Question paper consists of Part-A and Part-B
Answer ALL sub questions from Part-A
Answer any FOUR questions from Part-B
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PART–A*(14 Marks)*

1. a) What is the role of computers in manufacturing? [2]
   b) Write a short note on solid modeling. [3]
   c) What are the basic components of an NC system? [2]
   d) What is the need of Group Technology? [2]
   e) What is the role of computers in quality control? [3]
   f) What is the significance of quality control in CIM? [2]

PART–B*(4x14 = 56 Marks)*

2. a) Describe transformations of the graphics? Explain three dimensional transformations? [7]
   b) Discuss in detail about input and output devices. [7]

3. a) Derive the parametric equation for Hermite cubic curve? Discuss its importance. [7]
   b) What are the manipulation curve fitting techniques used in wire frame modelling? [7]

4. a) Explain the basic structure of DNC and CNC systems. [7]
   b) What are the main features of CNC Machine Tool? Write any 10 G-codes and 10 M-codes with a short description. [7]

5. a) Explain about the OPITZ coding system generally used in Group Technology. [7]
   b) Discuss the circular, linear, loop layers' types of layouts in the design of FMS. [7]

6. a) Explain the application guidelines for the three types of computer integrated manufacturing systems? [7]
   b) Describe the Scheduling and Dispatching issues related to Flexible Manufacturing system? [7]

7. a) Explain the material handling systems used in CIM. [7]
   b) How will you use internet as an advantage to implement CIM? [7]

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