

B.Tech Degree VI Semester Examination May 2003

ME 603 CAD/CAM - I *(1999 Admissions onwards)*

Time: 3 Hours

Maximum Marks: 100

- I. (a) Explain the two basic approaches used in solid modelling. (10)
(b) Explain the architecture of a typical CAD work station. (10)
OR
- II. (a) Explain the various steps involved in a design process. (10)
(b) Describe the importance of curve and surface modelling in computer aided graphics and design. (10)
- III. (a) Define the term automation. What are the advantages of automation. (10)
(b) Explain the information Processing cycle in a typical manufacturing firm. (10)
OR
- IV. (a) What are the functions of a DNC system? (10)
(b) Explain the two types of adaptive control machining systems. What are the advantages of adaptive control machining ? (10)
- V. (a) Explain how CNC systems are classified based on the control system used. (10)
(b) Explain the working of a Linear position measuring transducer. (10)
OR
- VI. (a) Why is feed back necessary in machine tools? Discuss the methods for velocity feed back in CNC machines. (10)
(b) Explain the various components of a CNC system. (10)
- VII. (a) What is computer aided Part Programming? How it is different from manual Part Programming? (10)
(b) Explain the different statements used in 'APT' language. (10)
OR
- VIII. (a) Explain canned cycle applied to CNC machines. (10)
(b) Explain with a block diagram an Expert CAPP system. (10)
- IX. (a) What are the factors to be considered while designing the structure for a CNC machine? (10)
(b) What are the special features of work holding devices used in CNC applications? (10)
OR
- X. (a) What is tool-presetting? How do the preset tools help to increase productivity? (10)
(b) What are the special design features of CNC machines? Explain. (10)

