

***B. Tech Degree VI Semester (Supplementary) Examination,  
October 2009***

**ME 603 CAD/CAM I  
(1999 Scheme)**

Time : 3 Hours

Maximum Marks : 100

- I. (a) Discuss the role of computers in design process. (10)  
(b) Briefly describe the data exchange between CAD and CAM. (10)  
**OR**
- II. (a) Differentiate between wire frame modelling, surface modelling and solid modelling. (10)  
(b) Explain the various steps involved in the design process. (10)
- III. (a) Differentiate between hard automation and soft automation. (10)  
(b) Explain the various components of a DNC system. (10)  
**OR**
- IV. (a) Explain the methods of transport used in an automated flow line. (10)  
(b) Explain the adaptive control machining systems. (10)
- V. (a) Briefly explain the classifications of CNC systems based on control system. (10)  
(b) Explain the working of a linear and rotary displacement transducer. (10)  
**OR**
- VI. (a) What are the advantages of Computer Numerical Control? (10)  
(b) Differentiate between an open loop and a closed loop system. (10)
- VII. (a) Briefly describe generative and retrieval type CAPP systems. (10)  
(b) Explain the different types of statements used in the 'APT' language. (10)  
**OR**
- VIII. (a) Differentiate between manual part-programming and computer aided programming. (10)  
(b) Explain the canned cycles applied to CNC machines. (10)
- IX. (a) Explain the salient features of work holding devices used in CNC machines. (10)  
(b) Which is tool pre-setting? How does the pre-set tools increase productivity? (10)  
**OR**
- X. (a) What are the different methods used to reduce idle time on CNC machines. (10)  
(b) What are the special design features of CNC machines? Explain. (10)

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