B.Tech. Degree VI Semester Examination, June 2006

ME 603 CAD/CAM I

(Prior to 2002Admissions)

Time: 3 Hours   Maximum Marks: 100

I	a)	Discuss the role computer in design process.	(10)
	b)	What is FEM? Discuss.	(10)

OR

II	a)	What is solid modeling? Explain the salient features.	(10)
	b)	Discuss the data exchanges between CAD and CAM.	(10)

III	a)	Discuss high volume discrete parts production – Detroit type of automation.	(10)
	b)	Explain direct numerical control.(DNC)	(10)

OR

IV	a)	Discuss the three basic measures of flow line performance.	(10)
	b)	What is computer integrated manufacturing? Explain.	(10)

V	a)	Define and differentiate open loop and closed loop control.	(10)
	b)	Explain PTP and CP control of motion in NC.	(10)

OR

VI	a)	What is NC? Explain its advantages, limitations and applications.	(10)
	b)	What is a Resolver? Explain its working with necessary schematic diagrams.	(10)

VII	a)	Discuss different types of NC words.	(10)
	b)	What is a canned cycle? Explain.	(10)

OR

VIII	a)	Discuss the APT and the general structure of language.	(10)
	b)	Explain G function, M function.	(10)

IX		Explain briefly special design features to match machine tools to NC systems.	(20)

OR

X   Explain the following:
- (i)   Automatic tool changes
- (ii)   Automatic pallet changes
- (iii)   Accuracy and testing of NC machine tools.   (20)

***