BTS(C) 053(B)

B.Tech. Degree VI Semester Examination, July 2002

ME 603 CAD/CAM I
(1999 Admissions)

Time: 3 Hours *Max. Marks: 100*

I	a)	Explain the various steps involved in a design process.	(10)
	b)	Explain wire frame modelling, surface modelling and solid modelling.	(10)
		OR	
II	a)	Explain the salient features of solid modelling.	(12)
	b)	What are the benefits of computer aided design.	(8)
III	a)	Define the term automation. What are the types of automation?	(10)
	b)	Explain the various components of a DNC system.	(10)
		OR	
IV	a)	What are the methods of transport used in an automated flow line.	(10)
	b)	Explain adaptive control machining systems.	(10)
V	a)	How CNC systems are classified based on feed back control? Explain.	(10)
	b)	Explain the working of linear position measuring transducer used in CNC machines.	(10)
		OR	
VI	a)	Explain how CNC systems are classified based on control system.	(12)
	b)	What are the advantages of Computer Numerical Control?	(8)
VII	a)	What is meant by manual part programming? What are the disadvantages of it?	(10)
	b)	Explain the different types of statements used in the 'APT' language.	(10)
		OR	
VIII	a)	Explain canned cycles applied to CNC machines.	(10)
	b)	Explain retrieval type CAPP systems and Generative type CAPP systems.	(10)
IX	a)	What are the special design features of CNC machines? Explain.	(10)
	b)	What is tool pre-setting? How does the pre-set tools increase productivity?	(10)
		OR	
X	a)	Discuss the special features of work holding devices used in CNC machines.	(10)
	b)	Discuss the methods used to reduce the idle time on CNC machines.	(10)

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