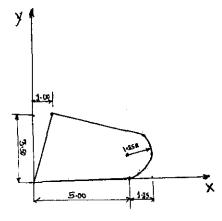# B. Tech Degree VI Semester Examination, April 2009

ME 603 CAD/CAM I

(1999 Scheme)

Time : 3 Hours   Maximum Marks : 100

I.		What are the six phases involved in the general process of design? Explain applications of computers in design.	(20)
		OR	
II.	(a)	With neat sketches, describe the configuration of a typical CAD system.	(10)
	(b)	What are the computer languages available for Numerical Control?	(10)
III.	(a)	Explain the concept of flexible automation.	(10)
	(b)	Discuss any three methods of computerized line balancing.	(10)
		OR	
IV.		Write short notes on :	
		(i) Flexible Manufacturing System	
		(ii) Industrial Robot	
		(iii) Direct Numerical Control	(20)
V.	(a)	What is Numerical Control (NC)? What are the advantages of NC?	(10)
	(b)	Explain the coordinate system in NC.	(10)
		OR	
VI.	(a)	Distinguish between Point-to-Point control and Continuous Path Control in Numerical Control System.	(10)
	(b)	With sketches, explain open loop and closed loop control in NC system.	(10)
VII.	(a)	With examples explain miscellaneous function code.	(10)
	(b)	With a block diagram, describe the steps involved in Computer Assisted Part Programming.	(10)
		OR	
VIII.		Write APT Geometry and Motion statements for the work part shown	(20)

IX.		With neat sketches, explain special design features to match machine tools to numerical control system.	(20)
		OR	
X.	(a)	Discuss the features of CNC systems for single spindle turning machine.	(10)
	(b)	Describe the concept of Machining Centre.	(10)

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