Code No: **RT41032** **R13** **Set No. 1**

IV B.Tech I Semester Supplementary Examinations, February - 2019

CAD/CAM

(Common to Automobile Engineering and Mechanical Engineering)

Time: 3 hours **Max. Marks: 70**

Question paper consists of Part-A and Part-B
Answer ALL sub questions from Part-A
Answer any THREE questions from Part-B
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PART–A *(22 Marks)*

1.	a)	Give a brief note on storage devices.	[3]
	b)	Enumerate the basic geometric commands.	[3]
	c)	What is Adaptive control?	[4]
	d)	Compare generative type and retrieval type CAPP system.	[4]
	e)	List out the contact and non-contact type inspection methods in quality control.	[4]
	f)	Give the benefits of computer integrated manufacturing system.	[4]

PART–B *(3x16 = 48 Marks)*

2.	a)	Explain about CAD/CAM hardware.	[8]
	b)	Describe an algorithm for the removal of hidden lines.	[8]
3.	a)	Discuss the use of various editing commands available in a CAD package	[8]
	b)	Develop a general form of Bezier curve for the control points given by (0, 2), (2, 3), (3, 2) and (3, 0).	[8]
4.	a)	Discuss the procedure for preparing a NC part program with an example.	[8]
	b)	Briefly describe the CNC machining centers. With the help of a diagram differentiate between the operations of canned cycles G81 and G83.	[8]
5.	a)	Compare a process type layout and group technology layout for batch production of a simple component.	[8]
	b)	Discuss Product flow analysis.	[8]
6.	a)	Discuss major non-contact inspection methods.	[8]
	b)	Enumerate any eight uses of computers in quality control.	[8]
7.	a)	What are the different types of manufacturing systems? Explain with the help of block diagrams.	[8]
	b)	What do you understand by the term CIM? State and elaborate on the advantages of CIM in a manufacturing unit.	[8]

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