Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VII • EXAMINATION – SUMMER 2013

Subject Code: 171903 **Date: 28-05-2013**

Subject Name: Computer Integrated Manufacturing

Time: 02.30 pm - 05.00 pm **Total Marks: 70**

Instructions:

1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	Classify CNC machine tools on the basis of (1) Programming methods (2) Types of controllers	**04**
	(b)	What is Adaptive control system?	**03**
	(c)	What are the different ways of defining circle ,using geometry statements of APT language.	**07**
Q.2	**(a)**	What are the auxiliary statements in APT language? Explain with suitable Examples any four auxiliary commands.	**07**
	(b)	(1) Explain any four canned cycles. (2)What is a motion statement in APT language? Explain with suitable example the format of motion statements.	**07**
		OR	
	(b)	Explain the programming of **CNC** Machining centre with suitable example.	**07**
Q.3	**(a)**	(1)What are the input parameters in MRP-I? (2) What is the difference between MRP-I &MRP-II?	**07**
	(b)	What is computer integrated production management system? Explain with neat flow chart.	**07**
		OR	
Q.3	**(a)**	Explain in brief Economic Evaluation of investment in robotic Installation.	**07**
	(b)	What are the different types of drives used in robot?	**07**
Q.4	**(a)**	What is part classification and coding requirements in GT. Explain OPTIZ system of coding.	**07**
	(b)	Explain with neat sketch AS/RS system used in FMS.	**07**
		OR	
Q.4	**(a)**	List various models of CIM. Explain any one in details.	**07**
	(b)	Explain with neat diagram retrieval of CAPP.	**07**
Q.5	**(a)**	Explain the types of flexibilities in FMS and discuss the factors on which these flexibilities depend.	**07**
	(b)	Discuss various applications of robots.	**07**
		OR	
Q.5	**(a)**	Explain in brief Programmable Logic controllers(PLCS)	**07**
	(b)	Explain in detail composite part	**07**

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