Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

ME - SEMESTER II- EXAMINATION - WINTER - 2016

Subject Code: 2722808 Subject Name: Product Automation & CNC Technology		Name: Product Automation & CNC Technology	Date: 19/11/2016	
	tructio 1. 2.	2:30 pm to 5:00 pm Total Marks: Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	70	
Q.1	(a) (b)	Write a note on a Word Address Format (WAF) used in part programming. Explain with example the use of Macros in part programming.	07 07	
Q.2	(a) (b)	"Automation plays vital role for the growth of industry". Justify the statement. Classify the actuators based on type of drive power. Explain them in brief. OR	07 07	
	(b)	What are the different strategies adopted in automation? Explain.	07	
Q.3	(a)	Explain with example the use of Subprograms in case of manual part programming.	07	
	(b)	What are canned cycles used in lathes? Explain Stock Removal in turning and Facing with necessary G codes.	07	
Q.3	(a)	OR List and explain important APT auxiliary statement.	07	
Q.C	(b)	Write a short note on transfer machines.	07	
Q.4	(a) (b)	Explain role of CNC technology in manufacturing industry. Describe in brief Adaptive Control systems. OR	07 07	
Q.4	(a) (b)	Classify and explain the NC system based on control loops. Write a short note on input media for NC systems.	07 07	
Q.5	(a) (b)	Explain the construction details of a NC Wire Cut EDM machine. What are different feedback devices used in NC machine tools? Explain any two in brief.	07 07	
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Q.5	(a) (b)	What are the applications of Numeric Control? What is tool length compensation and how it is implemented in CNCs?	07 07	
