

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
ME - SEMESTER-II(New course) EXAMINATION(Remedial) –WINTER 2015

Subject Code: 2722808

Date:10/12/2015

Subject Name: Product Animation and CNC technology

Time:2:30 Pm to 5:00 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)	What are the advantages and disadvantages of automation?	07
	(b)	Differentiate fixed, programmable and flexible automation.	07
Q.2	(a)	Write a short note on input media for NC systems.	07
	(b)	Why is a reciprocating ball in screw universally used in actuation system of CNC machine tools?	07
OR			
	(b)	Write a short note on word Address Format used in part programming.	07
Q.3	(a)	Explain the concept of adaptive controls and discuss ACC system diagram for turning center.	07
	(b)	What is the function of transfer machines? Discuss various types of transfer machines.	07
OR			
Q.3	(a)	Which is the various positioning feedback devices used in NC system? Explain any one of them.	07
	(b)	Explain error detection and recovery in an automated system.	07
Q.4	(a)	What are the canned cycles used in CNC milling and drilling machining? Explain any two with necessary G codes.	07
	(b)	What is the significance of MCU in case of NC system? Draw a neat block diagram to explain its function.	07
OR			
Q.4	(a)	Explain with an example the difference between diameter and radius programming in CNC lathes.	07
	(b)	Explain with neat sketch working principle of wire cut EDM process. Also write its process parameters and applications.	07
Q.5	(a)	Write a short note on a repetitive programming in APT.	07
	(b)	Explain the following terms: (i) Open loop and close loop control system (ii) Modal and Non Modal codes	07
OR			
Q.5	(a)	What is "drive system" and what type of drive mechanisms are used in CNC?	07
	(b)	Write a note on tool length and cutter diameter compensation.	07
