Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

ME – SEMESTER III (OLD) – EXAMINATION – WINTER-2016

Subject Code: 730406 **Date:27/10/2016**

Subject Name: Peripheral System Design and Interfacing

Time:02:30 pm to 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)**	What is data acquisition system? Draw and explain block diagram of it in detail.	**07**
	(b)	What do you mean by bus? Explain bus structure and bus design in detail.	**07**
Q.2	**(a)**	Explain serial communication using null modem and loop back plug.	**07**
	(b)	Write a short note on: Microprocessor Development Tools.	**07**
		OR	
	(b)	Write a short note on: Cross Compiler and In Circuit Emulator	**07**
Q.3	**(a)**	Compare serial and parallel data transfer and explain the RS 232 C serial data transfer standard.	**07**
	(b)	What is Transparent addressing in CRT Controller? How it is implemented?	**07**
		OR	
Q.3	**(a)**	Write short notes on (1) PS / 2. (2) ISA.	**07**
	(b)	What is CENTRONICS? Explain CENTRONICS handshake with timing diagram.	**07**
Q.4	**(a)**	Explain RS – 449 communication interface in detail.	**07**
	(b)	Give the advantage and disadvantage of serial port communication over parallel port communication.	**07**
		OR	
Q.4	**(a)**	What is PLC? Discuss its advantages with appropriate examples.	**07**
	(b)	Write a short note on PID controller.	**07**
Q.5	**(a)**	Write a note on display devices and explain CRT, LCD, LED displays in detail.	**07**
	(b)	Write a note on DMA controller.	**07**
		OR	
Q.5	**(a)**	State and explain GPIB data message terminating method and GPIB polling.	**07**
	(b)	Write brief note on GPIB and GPIB programming techniques. Also mention advantages and disadvantages of GPIB.	**07**

****