

GUJARAT TECHNOLOGICAL UNIVERSITY**M.E -IIIrd SEMESTER-EXAMINATION – MAY- 2012****Subject code: 730406****Date: 10/05/2012****Subject Name: Peripheral System Design & Interfacing****Time: 10:30 am – 01:00 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) Draw and explain the internal block diagram of keyboard / display interface 8279. **07**
(b) Write a short note: PID Controller. **07**
- Q.2** (a) How cross compiler and In-circuit emulator are useful in microprocessor based system design? **07**
(b) What is data acquisition system? Explain different component of it. **07**
OR
(b) What is PCI bus? What are the benefits of using PCI bus for the data acquisition and imaging application? **07**
- Q.3** (a) Give the classification of GPIB bus signal. Explain each signal in brief. **07**
(b) Explain GPIB bus configuration with their advantage and disadvantage. **07**
OR
- Q.3** (a) Write a short note: Different GPIB message. **07**
(b) State and explain GPIB data message terminating method and GPIB polling. **07**
- Q.4** (a) Why address contention circuits are required in CRT controller? Explain MPU priority and ϕ_1 / ϕ_2 interleaving scheme. **07**
(b) Explain serial communication using null modem and loop back plug. **07**
OR
- Q.4** (a) Explain frame synchronism using RES signal in CRT controller. **07**
(b) Give the comparison of the serial data transfer and parallel data transfer methods. **07**
- Q.5** (a) State and explain the pin function of RS-232 interface. **07**
(b) What is centronics? Explain centronics handshaking with necessary timing diagram. **07**
OR
- Q.5** (a) Write a short note: EISA bus standard. **07**
(b) State the application of the following bus : S-100, multibus, VESA-VL, current loop, RS-232, ISA, PCI. **07**
