

GUJARAT TECHNOLOGICAL UNIVERSITY**M. E. - SEMESTER – III • EXAMINATION – WINTER 2012****Subject code: 730406****Date: 26/12/2012****Subject Name: Peripheral System Design and 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) What is PLC? Explain its operation with example. **07**
(b) Draw & explain PC Based Data Acquisition System. **07**
- Q.2** (a) Write short notes on **07**
(1) Cross Compiler. (2) Simulator & Emulator.
(b) Classify GPIB bus configuration & explain any one in detail. **07**
- OR**
- (b) Classify operating modes of IEEE 1284 standard & explain in detail. **07**
- Q.3** (a) What is CENTRONICS? Explain CENTRONICS handshake with timing diagram. **07**
(b) Write short notes on **07**
(1) PS / 2. (2) ISA.
- OR**
- Q.3** (a) Explain procedure for interfacing GPIB devices to PC. **07**
(b) Write short notes on **07**
(1) USB. (2) VESA BUS.
- Q.4** (a) Why PCI Bus is more popular? Explain in detail with its merits. **07**
(b) Write short notes on **07**
(1) Flow control. (2) Null Modem.
- OR**
- Q.4** (a) Draw block diagram of DMA controller & explain DMA operation in detail. **07**
Q.4 (b) Write short notes on **07**
(1) Loop back Plug. (2) DCE and DTE.
- Q.5** (a) Compare serial data transfer with parallel data transfer in detail. **07**
(b) Explain Integrated development environment. **07**
- OR**
- Q.5** (a) Explain CRT controller. **07**
(b) What are the basic signal conditioning requirements of following **07**
transducers?
(1) RTD. (2) Thermocouple.
