

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
M.Tech., Winter 2017 - 18 Examination

Semester: 2**Subject Code: 03212134****Subject Name: Industrial Control and Interfaces****Date: 11/01/2018****Time: 2:00pm to 4:30pm****Total Marks: 60****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1 A) Why PCI Bus is more popular? Explain in detail with its merits. **(05)**

B) Draw and explain PC based Data acquisition System. **(05)**

C) State and explain the pin function of RS-232 interface. **(05)**

Q.2 Answer the following questions. (Attempt any three) (Each five mark) **(15)**

A) Classify operating modes of IEEE 1284 standard & explain in detail.

B) Compare serial data transfer with parallel data transfer in detail.

C) Write a short note on PID controller.

D) Write a short note on: Programmable Logic Controller.

Q.3 A) What do you mean by Centronics? Explain Centronics handshaking with timing diagram. **(07)**

B) Explain procedure for interfacing GPIB devices to PC. **(08)**

OR

B) Explain frame synchronism using RES signal in CRT controller. **(08)**

Q.4 A) Write short notes on (1) Flow control. (2) Loop back Plug **(07)**

OR

A) Discuss various system development tools and their uses in brief. **(07)**

B) Explain in detail EISA bus, MCA bus, VESA VL bus and Modbus protocol. **(08)**