

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

Semester: 2
Subject Code: 03212134
Subject Name: Industrial Control and Interfaces

Date: 25/05/2018
Time: 02:00PM to 04:30PM
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.1A) Explain bus structure in detail. (05)

B) Describe Bus design Parameter. (05)

C) Explain data acquisition (DAQ) system. (05)

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

A) Write short note on Null Modem.

B) List the basic signal conditioning requirements of RTD, Thermistor, Strain gauge, Current-output device and Thermocouple.

C) Explain RS-449 communication interface in detail.

D) Explain PID Controller.

Q.3A) Explain the pin function of RS-232 interface. (07)

B) Explain GPIB standard with the flow of data transfer handshake waveform. (08)

OR

B) State different contention schemes in CRT controller. Explain two of them in detail. (08)

Q.4A) Why PCI bus is more popular? Explain in detail with its merits. (07)

OR

A) Write Short note on programmable logic controller. (07)

B) Enlist program development process used in microprocessor based system. Explain 3 of them in detail. (08)