

(Following Paper ID and Roll No. to be filled in your Answer Books)

Paper ID : 120667

Roll No.

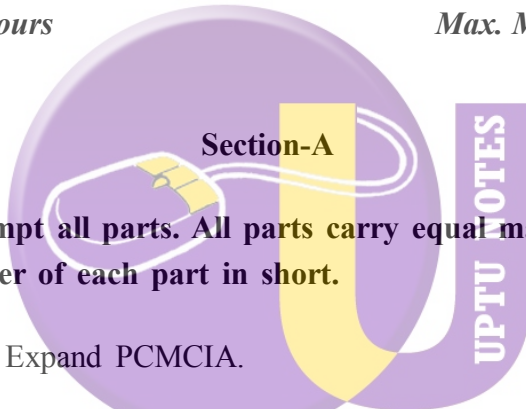
B.TECH.

Theory Examination (Semester-VI) 2015-16

INTELLIGENT INSTRUMENTATION

Time : 3 Hours

Max. Marks : 100



Q1. Attempt all parts. All parts carry equal marks. Write answer of each part in short. (2×10=20)

- (a) Expand PCMCIA.
- (b) Give an idea about strings?
- (c) Define Data Acquisition System (DAS/DAQ).
- (d) List out the functions of Digital data acquisition system.
- (e) Mention the need of a DAQ card.

- (f) List the uses of counter/timers in DAQ card.
- (g) Differentiate between analog and digital IO.
- (h) Comment on IEEE 488.1 and 488.2.
- (i) Enumerate on clusters and arrays.
- (j) Mention the DLL links & its uses.

Section-B

Q2. Attempt any five questions. (10×5=50)

- (a) Explain interfacing methods of DAQ.
- (b) What do you mean by network communication? What is the use of data sockets in network communication?
- (c) Explain about VI's loops, charts, arrays, graphs, clusters.
- (d) Explain in detail about RS 232C, RS422, RS423, RS485.
- (e) Explain the interfacing methods of DAQ hardware.
- (f) Explain about USB, PXI VXI, and SCXI.

- (g) Write short notes on the structure, timing and interrupts of instrumentation buses.
- (h) Explain DMA and the operating system in PC.

Section-C

Attempt any two questions.

(15×2=30)

- Q3. What is meant by data acquisition system? Explain the different elements present in these types of systems in detail.
- Q4. What is a PXI controller? Explain the types of PXI controllers in detail.
- Q5. How are case and sequence structures used in VI programming? Explain about publishing measurement data in the web.