

SECTION-C

Note: Long answer type questions. Attempt any three questions. 3x10=30

- Q.3 Explain RS-232 interface in detail.
- Q.4 Explain data acquisition system in detail.
- Q.5 Explain architecture of virtual instrumentation.
- Q.6 Discuss the role of lab view in instrumentation.
- Q.7 Write short note on any two
- i) U.S.B
 - ii) Inter bus
 - iii) PC hardware structure

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Roll No.

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6th Sem. / Inst. & Control

Subject : Virtual Instrumentation

Time : 3 Hrs.

M.M. : 100

SECTION-A

Note: Very Short Answer type questions. Attempt any 15 parts. (15x2=30)

- Q.1 Define/ Explain the following:-
- a) Virtual instrumentation
 - b) Lab view
 - c) Data
 - d) Instrumentation
 - e) Signal processing
 - f) Interface
 - g) Transducer
 - h) Amplifier

(60)

(4)

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(1)

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- i) Array
- j) Expand ADC
- k) Editing
- l) Multiplexer
- m) Expand U.S.B
- n) D.I.O
- o) Filter
- p) Pressure
- q) Bus
- r) Loop

SECTION-B

Note: Short answer type questions. Attempt any ten parts 10x4=40

Q.2 i) Write any four application of virtual instrument in temperature control.

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- ii) What do you mean by G.P.T.B?
- iii) Discuss instrumentation buses.
- iv) What do you mean by data acquisition.
- v) Write a note on pallettes.
- vi) Discuss the role of connectors.
- vii) Explain R/2R ladder network digital to analog converter.
- viii) Explain dual slope analog to digital converter.
- ix) Give advantages of virtual instrument over conventional instruments.
- x) What is the future of V.I system.
- xi) Discuss role of debugging in lab view.
- xii) Write short note on cluster.
- xiii) What do you mean by timer.
- xiv) How V.I is used in temperature control?
- xv) Explain RS432 interface.

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