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Eighth Semester B.E. Degree Examination, July/August 2021
Virtual Instrumentation

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions.

- 1 a. Explain in detail ADC and DAC systems. (10 Marks)
b. Explain the important performance parameters for sample and hold circuits. (10 Marks)
- 2 a. Briefly explain the PC based data acquisition. (10 Marks)
b. Discuss the multiplexing of analog signals. (10 Marks)
- 3 a. Explain different strategies for sampling of multichannel analog inputs. (10 Marks)
b. Explain the following: (10 Marks)
 - i) Timers
 - ii) Counters.
- 4 a. Explain the ISO – OSI model for serial bus and describe each layer in detail. (12 Marks)
b. Compare the properties of GPIB, RS – 232 and RS – 485 Interfaces. (08 Marks)
- 5 a. Discuss the concept of VI's and sub VIS. (10 Marks)
b. Explain the case and sequence structure. (10 Marks)
- 6 a. Explain the following function of labview: (10 Marks)
 - i) Case structures
 - ii) Sequence structures
b. Define array. Explain the operation of 2 dimensional array and 3 dimensional array. (10 Marks)
- 7 a. Describe the procedure to create subVI from existing code. (10 Marks)
b. Write short notes on the following: (10 Marks)
 - i) Windowing
 - ii) Fast Fourier Transform.
- 8 a. Explain the generation of HTML page. (10 Marks)
b. Briefly explain the simulation of a simple second order system. (10 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.