

CBCS SCHEME

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15NT44

Fourth Semester B.E. Degree Examination, Dec.2019/Jan.2020 Electronic Instrument and Measurement

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Explain about differential voltmeter with the help of a neat circuit diagram. (06 Marks)
- b. Write a short notes on probability of errors and limiting errors. (06 Marks)
- c. Write a short note on extending of ammeter ranges. (04 Marks)

OR

- 2 a. Explain about DC ammeter and multi range ammeters with the help of neat circuit diagrams. (10 Marks)
- b. What is transistor voltmeter? Explain the working of transistor voltmeter with a neat diagram. (06 Marks)

Module-2

- 3 a. Explain the principle and working of integrating type DVM. (08 Marks)
- b. Discuss about Universal Counter and explain how it work. (08 Marks)

OR

- 4 a. Explain about ADC and DAC. (06 Marks)
- b. Explain in detail about RAMP technique and mention the advantages and disadvantages. (10 Marks)

Module-3

- 5 a. Explain about function generator with diagram. (10 Marks)
- b. Discuss Vertical amplifier with the help of diagram. (06 Marks)

OR

- 6 a. Explain the block diagram of oscilloscope. (08 Marks)
- b. Discuss about standard signal generator with the help of diagram. (08 Marks)

Module-4

- 7 a. Discuss about Wheatstone's bridge with a neat circuit diagram. (08 Marks)
- b. Explain about Telemetry, what are the uses of Telemetry. (08 Marks)

OR

- 8 a. Explain how phase sensitive detector works. (08 Marks)
- b. What is Megger and explain types of Megger. State how it works with a neat diagram? (08 Marks)

Module-5

- 9 a. Write a short note on transducers and actuator. (04 Marks)
- b. Explain about piezo electrical transducer with a neat diagram. (06 Marks)
- c. Explain the working of photo transistor with the help of neat diagram. (06 Marks)

OR

- 10 a. With the help of neat diagram, explain the working of LVDT and mention the advantages and limitations. (10 Marks)
- b. Write a note on capacitive transducer. (06 Marks)

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.