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Roll No

EE-5004-CBGS

B.E. V Semester

Examination, June 2020

Choice Based Grading System (CBGS)

Electronic Instrumentation

Time : Three Hours

Maximum Marks : 70

Note: i) Attempt any five questions.

ii) All questions carry equal marks.

1. a) Explain dual trace oscilloscope with the help of block diagram. Write function of each block. 7
b) What is Lissajous patterns? Explain how it can be used for measurement of frequency. 7
2. a) Explain the principle of sampling oscilloscope. Write its applications. 7
b) Explain measurement of capacitance with the help of Schering bridge. 7
3. a) What is Wagner earthing device? Explain its operation. 7
b) Explain in detail the various sources and detectors employed in different a.c. bridges. 7
4. a) What is Strain gauge? Derive an expression for calculating gauge factor. 7
b) What are thermistors? Explain the working, construction and applications of thermistors. 7

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5. a) What is Multiplexing? Explain A/D (Analog to Digital) multiplexing technique. 7
- b) What is Function generator? Explain its operation with block diagram. 7
6. a) Describe with the help of diagram, the working of beat frequency oscillator. 7
- b) What is the importance of spectrum analyser? Explain its operation with diagram. 7
7. a) Explain the working of Ramp type digital voltmeter with block diagram and waveform. 7
- b) Discuss the advantages of digital instruments over analog instruments. 7
8. Write a short note on any two of the followings. 7 each
- a) Q-meter and its applications
- b) Piezo-Electric transducers
- c) Digital multimeter
- d) Oscilloscope probes

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