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EC-203

**ELECTRONICS MEASUREMENTS
AND INSTRUMENTATION (NEW)**

(B.Tech., 3rd Semester, 2055)

Time : 3 Hours

Maximum Marks : 60

Note :- Section A is compulsory. Attempt any *Four* questions from Section B and any *Two* questions from Section C.

Section-A Marks : 2 Each

1. (a) Distinguish between an analog and digital multimeter.
- (b) What is harmonic distortion ?

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- (c) Distinguish between current and potential transformers.
- (d) What is fourteen segment display ?
- (e) Define a wave analyzer.
- (f) Where is LCR-metre used ?
- (g) How is inductance measured ?
- (h) What is a special purpose oscilloscope ?
- (i) What are strip chart recorders ?
- (j) What is phase angle error ?

Section-B Marks : 5 Each

- 2. Discuss the construction and working of a signal generator.
- 3. Explain the Instrument Transformers.
- 4. Describe the construction and working of LVDT.

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- 5. Discuss piezo-electric crystals and photoelectric transducers.
 - 6. Discuss the concept of telemetry.
- Section-C** Marks : 10 Each
- 7. Describe the implementation stages in a Data organisation system.
 - 8. Explain the construction and working of a Nixie-tube.
 - 9. Write short notes on the following :
 - (a) Thermocouple
 - (b) Maxwell's bridge.