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Printed Pages : 2

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BT-4 / M-17

**ELECTRONIC MEASUREMENTS AND  
INSTRUMENTS**

**Paper-ECE-204-N, Opt. (I)**

*Time allowed : 3 hours]*

*[Maximum marks : 75*

*Note : Attempt any five questions by selecting at least one from each unit.*

**Unit-I**

1. What are the various general characteristics of measuring instruments? Distinguish between systematic error and Random error. How is random error found out and corrected. Also differentiate between accuracy and precision with help of suitable example. 15
2. Explain Wheatstone and Kelvin double bridge method used for the measurement of Resistance. 15

**Unit-II**

3. Explain with circuit and suitable equations how we can measure unknown inductance using Maxwell inductance capacitance Bridge. 15
4. (a) What are the main features to be considered for making choice of a particular Galvanometer.  
(b) Explain the applications of potentiometer. 15

**Unit-III**

5. (a) Discuss wave analyzer in detail.  
(b) What are Op-Amp Parameters, how we can measure Op-Amp Parameters. 15

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6. Write short note on :

- (a) Digital Display methods
- (b) Digital Voltmeters.

15

**Unit-IV**

7. Classify different types of Transducers. Write short note on Piezo electric Transducer. Also explain the process of Liquid Level Measurement. 15

8. Write short note on :

- (a) Multiplexing
- (b) Analog and Digital Data Acquisition systems.

15

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