

No. of Printed Pages : 03

Roll No.

E-22

B. Tech. EXAMINATION, Dec. 2018

(Fifth Semester)

(B. Scheme) (Main & Re-appear)

(ECE)

ECE303B

ELECTRONIC MEASUREMENT AND
INSTRUMENTATION

Time : 3 Hours]

[Maximum Marks : 75

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

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P.T.O.

Unit I

1. (a) Explain in detail the construction and working of an electronic multimeter. **8**
(b) With the help of relevant diagram, discuss the working of an ohmmeter. **7**
2. With reference to an oscilloscope, explain in detail the following :
(a) Measurement of phase and frequency **7**
(b) Storage oscilloscope. **8**

Unit II

3. (a) Illustrate the critical parameters of a pulse. Describe the circuit for generation of pulses. **8**
(b) With the help of block diagram, explain the elements of a function generator. **7**
4. Explain in detail the principle and working of the following instruments :
(a) Decade Counting Assembly **8**
(b) Universal Counter. **7**

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Unit III

5. With reference to display devices, discuss the following in detail : **15**
(a) Segmental Gas Discharge Displays
(b) LED Displays.
6. (a) Explain in detail the basic components and advantages of a magnetic tape recorder. **8**
(b) Discuss in detail the types of strip chart recorders. **7**

Unit IV

7. Explain in detail the principle and working of the transducers for measurement of the following quantities :
(a) Displacement **7**
(b) Pressure. **8**
8. Write detailed notes on the following :
(a) Signal conditioning **7**
(b) Data acquisition system. **8**

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