

Roll No.

Total Pages : 02

BT-7/M-20

37181

**ELECTRONIC INSTRUMENTS AND
MEASUREMENTS
EEN-403N**

Time : Three Hours]

[Maximum Marks : 75

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

Unit I

1. (a) Describe an overview of applications of a CRO. 7
(b) Explain the different types of sweeps used in CRO.
Explain their spheres of applications. 8
2. (a) Explain the principle of working and circuit diagram
of a digital oscilloscope. 10
(b) Discuss the applications of Harmonic Distortions
Analyzer. 5

Unit II

3. (a) Describe the circuit and working of a Q-meter.
Describe its applications. 10

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- (b) Describe the applications of Electronic Galvanometer. **5**
4. (a) Explain the working and applications of Heterodyne frequency meter. **10**
- (b) What do you mean by 'Frequency measurements' using digital means ? **5**

Unit III

5. (a) What are the components of Analog and Digital data acquisition system ? **7½**
- (b) Describe one method of D/A conversion. Describe the terms : **7½**
- (i) Resolution
- (ii) Aperture time, used in conjunction with D/A conversion.
6. Explain Radio channels and Microwave channels in detail. **15**

Unit IV

7. Explain the principle and working of function generators. Also, describe its applications. **15**
8. Write short notes on the following : **5×3=15**
- (i) EMG
- (ii) Measurement of BP
- (iii) Pulse and square wave circuits.