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BIEE-007

00195

B.Tech. IN ELECTRICAL ENGINEERING (BTELVI)

Term-End Examination

June, 2012

BIEE-007 : ELECTRICAL MEASUREMENTS AND MEASURING INSTRUMENTS

Time : 3 Hours *Maximum Marks : 70*

Note : *Attempt **any seven** questions.*
*All questions carry **equal** marks.*

1. Describe the construction and working of a Ballistic Galvanometer. List out the differences between a ballistic Galvanometer and a D'Arsonval Galvanometer. **10**

2. Define the term standards as pertaining to measurements. Explain the concepts of Absolute and Working standards. **10**

3. Explain the working of attraction type and repulsion type of moving iron instruments with the help of neat diagrams. **10**

4. Describe the construction and working of an Earth Tester. Explain how it can be used for measurement of resistance of an earthing electrode ? **10**

5. Draw the block diagram of a Hetrodyne Harmonic Analyzer and explain its working. **10**

6. Explain with a circuit diagram how the Kelvin's double bridge is used for measurement of low resistance. Derive the condition for balance in the measurement. **10**

7. Describe the Murray loop test for localization of ground and short circuit faults in cables. **10**

8. Sketch the deflection system for Dual Beam CRO and explain its operation. **10**

9. With the help of a neat diagram, explain the basic construction of a cathode ray tube and discuss its operation. **10**

10. Describe with a circuit diagram how a PMMC instrument can be used as a DC Ammeter. **10**