

**B.Tech. - VIEP - ELECTRICAL ENGINEERING
(BTELVI)**

Term-End Examination

June, 2017

00984

**BIEE-007 : ELECTRICAL MEASUREMENTS AND
MEASURING INSTRUMENTS**

Time : 3 hours

Maximum Marks : 70

*Note : Attempt any **seven** questions. All questions carry equal marks. Use of scientific calculator is allowed.*

1. What are working standards and absolute standards ? Explain the process of calibration for measuring instruments. 5+5

2. With the help of a suitable diagram, explain the construction and working of a dynamometer type wattmeter. 10

3. Explain the construction and working of a single-phase induction type energy meter. 10

4. With the help of a suitable circuit diagram, explain how current and potential transformers are used in extension of range of ammeters and voltmeters. 10

5. Explain the working and operation of the Carey Foster slide wire bridge with the help of a suitable diagram. 10
6. How can a fault be located with the help of the Varley loop method for ground and short circuit fault ? 10
7. Draw a neat block diagram of CRO and explain the functions of each component in brief. 10
8. What are polar curves ? Define illumination and luminous efficiency. Write any two applications of polar curves. 10
9. Write short notes on any *two* of the following : $2 \times 5 = 10$
- (a) Shunt and Multiplier
 - (b) Gauss Meter
 - (c) Ampere-hour Meter
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