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**BIEE-019**

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

**Term-End Examination**

**June, 2019**

**BIEE-019 : ELECTRICAL INSTRUMENTATION**

*Time : 3 Hours*

*Maximum Marks : 70*

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

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1. Discuss the following terms in brief :  $5 \times 2 = 10$ 
  - (a) Resolution
  - (b) Accuracy
  - (c) True value
  - (d) Sensitivity
  - (e) Loading effects
  
2. (a) Define electrical transducer and write merits and demerits of it. 5
- (b) Differentiate between recording and integrating measuring instruments. 5
  
3. Explain the working of thermistors and RVDT and also write its applications. 10

4. (a) What is an opto electronic transducer ? 5  
(b) What are various elements of process control system ? 5
5. Discuss the following : 2×5  
(a) Land line telemetering system  
(b) Radio frequency telemetering system
6. Discuss the various components of an analog data-acquisition system. 10
7. (a) Discuss various types of Digital Display Units. 5  
(b) Explain the working of C. R. O. with the help of complete block diagram. 5
8. (a) Discuss fiber optic transducers in brief. 5  
(b) Explain working of smart sensors. 5
9. Write short notes on any *two* of the following : 5×2  
(a) X-Y recorders  
(b) PID controller  
(c) Smart transmitters  
(d) LVDT