- Briefly discuss high frequency CRO considerations. Also, draw the block diagram of CRO and explain its operation. Give its merits and applications.
- 2. (a) Discuss in detail the role, significance and working of Q-meters.10
  - (b) Briefly describe the operation of instruments used for measurements of voltage and other circuit parameters. 10
- 3. Explain the following in detail: 10+10
  - (a) Pulse generator and its applications
  - (b) Harmonic analyser and its applications.
- Define the term DCA. Briefly explain the design and working of Universal counter. Also its various advantages, disadvantages and applications.
- **5.** Describe the following:

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- (a) Principle and working of LED's
- (b) Nixie Tubes. **10+10**

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- **6.** Explain the following in detail. **8+12** 
  - (a) Construction and operation of Photocell
  - (b) Measurement of displacement, pressure and strain.
- 7. Briefly describe the working and applications of the following: 10+10
  - (a) AC signal conditioning system
  - (b) Data acquisition and conversion systems.
- 8. Write short notes on the following: 10+10
  - (a) Sampling and Storage Oscilloscopy
  - (b) Digital meters.

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## B. Tech. EXAMINATION, Dec. 2018

(Fourth Semester)

(Weekend) (Re-appear Only)

(EE, ECE)

ECEW204

## ELECTRONICS MEASUREMENT AND INSTRUMENTATION

Time: 3 Hours [Maximum Marks: 100

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 any *Five* questions. All questions carry equal marks.

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P.T.O.