

**24236**

**B.Tech. 5th Semester (ECE) F-Scheme Examination,**

**December-2017**

**ELECTRONIC MEASUREMENT AND  
INSTRUMENTATION**

**Paper-EE-303-F**

*Time allowed : 3 hours]*

*[Maximum marks : 100*

*Note : Attempt five questions. Question No. 1 is compulsory  
and attempt one question from each of four sections.*

1. (a) What is Sample and Hold Circuit ?  
(b) How frequency can be measured with CRO ?  
(c) Describe engineering applications of wave analyzers.  
(d) Give advantages of electronic chopper over electromechanical chopper.

**Section-A**

2. What is Oscilloscope ? Draw the neat block diagram of CRO and explain each block there in.
3. (a) Explain  $\phi$ -meters in detail.  
(b) What is wave analysis ? Explain distortion analysers.

**Section-B**

4. Explain function of each block of universal counter. What are the different modes of operation ? Describe its use as a frequency counter.

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**[P.T.O.]**

5. (a) Classify transducers in detail.  
(b) Explain measurement of pressure.

#### Section-C

6. Describe working of frequency distortion analyser with the help of block diagram.
7. With the help of suitable block diagram, discuss in detail about function generator.

#### Section-D

8. Explain with neat block diagram the DC signal conditioning system.
9. Write short notes on :
  - (i) Thermocouples
  - (ii) LVDT.