

Con. 4869-07.

(REVISED COURSE)

CD-5757

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( 3 Hours)

[ Total Marks : 100

- N.B.** (1) Question No. 1 is compulsory.  
 (2) Attempt any four from remaining questions.  
 (3) Assume any suitable data if necessary and state them clearly.

1. (a) Explain Ramp type Digital Voltmeter. State its advantage and disadvantage. 10  
 (b) Explain Instrumentation amplifier using three OP-AMP. Derive expression for gain of Amplifier. 10
2. (a) Draw block diagram of digital frequency meter and discuss its operation. 10  
 (b) Explain measurement of frequency by Lissajous pattern. 10
3. (a) What do you mean by order of filter ? Explain second order Low pass Butterworth filter. Derive transfer function for it. 12  
 (b) Explain Data Acquisition system. 8
4. (a) State the requirement of a good laboratory type signal generator. Draw and Explain basic block of signal generator. 10  
 (b) Explain any two flow measurement transducer. 10
5. (a) Describe working of electronic chopper stabilized amplifier with circuit/block diagram. 10  
 (b) Explain with block diagram true RMS type voltmeter. 10
6. (a) Explain with block diagram general purpose oscilloscope. Explain function of each block. 10  
 (b) Write short notes on any two :— 10
  - (i) Pressure measurement
  - (ii) Photoelectric transducer
  - (iii) Liquid level measurement.
7. (a) Differentiate between Dual Trace and Dual Beam Oscilloscopes. 10  
 (b) Explain Zeroth, First and Second order instrument responses. Give example of each. 10