

Code: R7421906

**R7****B.Tech IV Year II Semester (R07) Advanced Supplementary Examinations June 2012****ELECTRONIC MEASUREMENTS AND INSTRUMENTATION****(Electronics and Computer Engineering)**

Time: 3 hours

Max Marks: 80

Answer any FIVE questions

All questions carry equal marks

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- 1 (a) Explain the functioning of potentiometer type digital voltmeter.  
(b) Explain the types of test signals used in determining dynamic characteristics of measure remote applied to a system.
- 2 (a) With the help of block diagram explain working of laboratory type pulse generator.  
(b) Draw the block diagram of an audio frequency and square wave generator and explain its working.
- 3 (a) With the help of block diagram explain the working of a heterodyne wave analyses.  
(b) Explain "Fundamental- Suppression distortion analyses state its advantages".
- 4 (a) A cathode ray tube with magnetic deflection has its screen 20 Cm from the centre of the magnetic field. The width of the uniform magnetic field is 3 Cm and the final anode potential is 6 KV. Calculate the parallel deflector plates are 1.5 Cm long and spaced 5 mm. The screen is 50 Cm from the centre of the deflection plates. Find (i) The beam speed (ii) The deflection sensitivity of the tube.  
(b) Write a short note on dual beam CRO.
- 5 (a) Explain with neat block diagram digital storage oscilloscope.  
(b) Describe the different types of sweeps used in a CRO. Explain their fields of application.
- 6 (a) Explain how inductance can be measured by using Maxwell bridge.  
(b) Describe how Wein bridge is used for measurement of frequency.
- 7 (a) Explain briefly linear variable differential transformer.  
(b) How photoelectrical transducers are classified?
- 8 (a) Draw the block diagram of a generalized data acquisition system and explain it briefly.  
(b) Explain the factors which influence the response of a temperature sensing device.

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