

Code: R7410402

R07

B.Tech IV Year I Semester (R07) Supplementary Examinations, May 2013

ELECTRONIC MEASUREMENTS AND INSTRUMENTATION

(Electronics and Communication Engineering)

Time: 3 hours

Max. Marks: 80

Answer any FIVE questions
All questions carry equal marks

- 1 (a) Describe the dynamic characteristics of instruments.
(b) With a neat diagram, explain the principle of working of a solid state differential voltmeter.
- 2 (a) With a block diagram, describe the principle of working of arbitrary wave form generator.
(b) Draw the block diagram of a pulse generator and explain its working principle.
- 3 With a neat block diagram, explain the working principle of a spectrum analyzer.
- 4 (a) Draw the block diagram of a triggered sweep CRO and explain its working principle.
(b) Explain how frequency is measured using a CRO.
- 5 (a) With a neat diagram, explain the functioning of a storage oscilloscope.
(b) Discuss in detail about CRO probes.
- 6 Explain how unknown capacitance is measured using Schering bridge. Derive the balance equation for this bridge.
- 7 (a) Discuss about active transducers with examples.
(b) Derive the gauge factor of a strain gauge.
- 8 With neat diagrams, explain about the transducers used in the measurement of force, pressure and velocity.
