BE Semester-IV (I. C.) Question Bank

(Electrical and Electronic Measurement – IC405)

All questions carry equal marks(10 marks)

Q.1	Short note : accuracy and precision.
Q.2	What are the three general classes of measurement errors ?
Q.3	List five specific errors that frequently occur in the process of making measurements.
Q.4	Explain in detail D'Arsonval galvanometer movement.
Q.5	Explain in detail Electro dynamometer movement.
Q.6	Short note : Analog d.c. ammeters and Analog d.c. voltmeters
Q.7	Explain the block diagram of CRO.
Q.8	Explain in detail the Vertical deflection subsystem in CRO.
Q.9	Explain in detail the Horizontal deflection subsystem in CRO.
Q.10	Short note : Lissajous Figures
Q.11	Short note : Oscilloscope errors
Q.12	Explain the block diagram of Digital storage oscilloscope.
Q.13	Explain briefly the Wien bridge frequency meters.
Q.14	Explain the block diagram of a digital frequency meter.
Q.15	Explain the block diagram of a universal time-counters.
Q.16	Define the following terms : 1) Distortion analyser 2) Rejection filter
Q.17	Explain in detail dynamometer type wattmeter for single-phase power measurement.
Q.18	Short note : Errors in dynamometer watt meters
Q.19	Short note : Watt hour meter
Q.20	Short note : Colour coding of resistors
Q.21	Short note : Ohm meters
Q.22	Explain the wheastone bridge circuit for resistance measurement.
Q.23	Explain the difference between 'Rheostat' and a 'Potentiometer'.
Q.24	Describe the types of capacitors.
Q.25	Explain the bridge circuits for capacitance measurement.
Q.26	Short note : digital capacitance meters
Q.27	Explain with sketch inductor structures.
Q.28	Explain the bridge circuits for inductance measurement.
Q.29	Short note : Sweep frequency generators
Q.30	Short note : Pulse generators
Q.31	Short note : Function generators
Q.32	Define the following terms used to specify the performance of an oscillator.

	1) Dial resolution 2) Frequency stability 3) Range 4) Amplitude stability
Q.33	Define the following terms in reference to the description of a pulse. 1) Rise time 2) Fall time 3) Overshoot 4) Ringing 5) Jitter
Q.34	Short note : Capacitive interference
Q.35	Short note : Inductive interference and shielding
Q.36	Short note : Electromagnetic interference and shielding
Q.37	Explain in detail Conductively coupled interference.
Q.38	Explain in detail Ground-Loop interference.
Q.39	Explain in detail Input grounding to reduce Ground loop interference.
Q.40	Short note : Internal Noise