Q.34 How does a frequency counter works.

Q.35 Differentiate between Analog and Digital instruments.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

Q.36 Explain Q meter with block diagram and working principle.

Q.37 Explain the working of integrating type digital voltmeter.

Q.38 Explain instrumentation Amplifier.

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5th Sem / Branch : G.E.

Sub. : Electronic Instruments & Measurement

Time : 3Hrs. M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

Q.1 In standard institutions the instruments used are

a) Primary Instruments
b) Secondary Instruments
c) Absolute Instruments
d) Recordings Instruments

Q.2 Basic building blocks of digital multimeter

a) Oscillator, amplifier
b) Diode, Op-amp
c) Rectifier, Schmitt trigger
d) A/D, attenuator, counter

Q.3 Overloading is

a) Damage of meter
b) Increase the temperature
c) Does not affect the meter
d) Decrease the sensitivity

Q.4 Thermocouple meters are AC meters that responds to the

a) Peak value b) Instantaneous Value
c) Average value d) RMS value

Q.5 The Units for the deflection sensitivity of CRO are

a) meter/volt b) mm/volt

c) m/m-volt d) mm/m=volt

Q.6 The output wave of schmitt trigger is

a) Direct current b) Sinusoidal

c) Square wave d) Parabolic

Q.7 Wien bridge is used for the measurement of

a) Leakage and eddy current err

b) Residual error

c) Frequency and waveform

d) Errors

Q.8 Low resistance is measured by

a) Maxwell's bridge b) Wien's bridge

c) Desauty's bridge d) Kelvin double bridge

Q.9 The main advantage of digital instrument over analog is

a) Higher accuracy

b) Better resolution

c) Greater reading speed

d) All of the above

Q.10 An Integrating type digital voltmeter measure

a) Peak value b) Average value

c) RMS value d) None of these

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

Q.11 Define Resolution.

Q.12 Write full form of PMMC.

Q.13 Write unit of voltage.

Q.14 Write one application of AC mili - voltmeter.

Q.15 Give one fluorescent material.

Q.16 What is an attenuator.

Q.17 What is Q-meter.

Q.18 Give two applications of Anderson's bridge.

Q.19 What is digital voltmeter.

Q.20 Define logic Analyzer.

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

Q.21 What is loading effect.

Q.22 Define deat time and dead zone of an instrument.

Q.23 Write three limitation of multimeter in respect to frequency and input impedance.

Q.24 How the range of voltmeter can be extended.

Q.25 What is the function of delay line of CRO.

Q.26 Write the specification of CRO.

Q.27 Explain different types of AC mili-voltmeter.

Q.28 What is frequency spectrum

Q.29 Explain the block diagram and working of a function generator.

Q.30 Explain LCR bridge.

Q.31 Give advantages and disadvantages of Hay's bridge.

Q.32 What is logic Analyzer.

Q.33 Explain Anderson's Bridge.