

- Q.24 Discuss 3 wattmeter method for power measurement
 Q.25 Explain construction & working of phase sequence indicators.
 Q.26 Describe Transistor Tester.
 Q.27 Discuss classification of Instruments.
 Q.28 Describe Maxwell bridge circuit.
 Q.29 Discuss principle of Multimeter.
 Q.30 Explain single phase energy meter.
 Q.31 Discuss stroboscope frequency measurement.
 Q.32 Describe Q-meter.
 Q.33 Write a short note on digital frequency meter.
 Q.34 Write a short note on function generator.
 Q.35 Explain measurement of voltage & frequency using CRO.

SECTION-D

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

- Q.36 Describe Wagner earthing device with suitable diagram.
 Q.37 Explain construction and working principle of PMMC meter with diagram.
 Q.38 Draw & explain block diagram of basic CRO.

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3rd Sem / Instrumentation & Control Subject:- Test and Measuring Instruments

Time : 3Hrs. M.M. : 100

SECTION-A

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

- Q.1 Unit of power is _____
 a) Joule b) Watt
 c) Volt d) Farad
 Q.2 Wheatstone bridge is used for measurement of _____.
 a) Voltage b) Resistance
 c) Current d) Inductance
 Q.3 In electrodynamometer wattmeter fixed coil is also called _____.
 a) Current Coil b) Pressure Coil
 c) Both a & b d) None of these
 Q.4 Phase sequence indicators are used for _____.
 a) Energy Measurement
 b) Frequency Measurement
 c) Power Measurement
 d) None of these

- Q.5 The torque produced in a wattmeter is proportional to _____.
 a) The average value of current in the two coils.
 b) The R.M.S. value of current in the two coils.
 c) The average values of the supply voltage.
 d) None of these
- Q.6 A simple bridge circuit consist of a network of _____.
 a) 3 resistance arms b) 2 resistance arms
 c) 4 resistance arms d) None of these
- Q.7 A transistor has _____.
 a) One PN Junction b) Two PN Junction
 c) Three PN Junction d) None of these
- Q.8 ACRO can be used to measure.
 a) A.C. Voltage b) DC Voltage
 c) Frequency d) All of these
- Q.9 Principally CRO is a _____.
 a) Ammeter b) Voltmeter
 c) Wattmeter d) Watt hour meter
- Q.10 Which part is called as heart of CRO.
 a) CRT b) Sweep Generator
 c) Trigger Circuit d) Amplifier

SECTION-B

- Note:** Objective type questions. All questions are compulsory. (10x1=10)
- Q.11 Direct measurement methods are more accurate & less sensitive than indirect Measurement. (True/False)
- Q.12 Meggers are used for measurement of insulation resistance. (True/False)
- Q.13 AC Bridge uses Wagner earthing device for stay capacitance removal. (T/F)
- Q.14 Rectifier type meter uses _____ with PMMC.
- Q.15 Energy meter is used for measurement of _____.
- Q.16 Define transducer.
- Q.17 Expand CRO.
- Q.18 Expand PMMC meter.
- Q.19 Maxwell Bridge is used for measurement of capacitance. (True/False)
- Q.20 Voltmeter is an example of secondary instruments. (True/False)

SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)
- Q.21 Write a short note on Importance of measurement.
- Q.22 Describe megger for measurement of high resistance.
- Q.23 Explain thermocouple type meters.