

Q.30 Describe potentiometer method for measurement of resistance .

Q.31 Discuss Wheatstone bridge circuit.

Q.32 Write how the frequency is measured by CRO

Q.33 What are the rectifier type instrument ?

Q.34 Explain 2-wattmeter method for power measurement .

Q.35 Describe power , Energy and Frequency measurement.

SECTION-D

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

Q.36 Explain working principle construction and applications of stroboscope

Q.37 What is the need & importance of measurement ? Explain classifications of instrument ?

Q.38 Write a short note on :

- a) Maxwell bridge
- b) Transistor tester
- c) Hay's Bridge

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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 length is _____.

- a) Celsius
- b) Metre
- c) Second
- d) Kg

Q.2 Ohmmeter is used to measure _____.

- a) Inductance
- b) Capacitance
- c) Resistance
- d) Mass

Q.3 Unit of resistance is _____.

- a) Farad
- b) Kelvin
- c) Metre
- d) ohm

Q.4 Voltmeter is connected in _____ in the circuit

- a) Parallel
- b) Series
- c) Direct
- d) All of these

Q.5 _____ is used to measure current.

- a) Thermocouple
- b) Voltmeter
- c) ammeter
- d) Balance

- Q.6 Watt is unit of _____.
a) Current b) Energy
c) Power d) Voltage
- Q.7 Stroboscope is used to measure _____.
a) energy b) power
c) frequency d) speed
- Q.8 Function generator is used in _____ voltage.
a) AC b) DC
c) AC & DC d) None of these
- Q.9 Unit of frequency is _____.
a) Kg b) Metre
c) Second d) Hertz
- Q.10 Strip chart recorder is an example of _____.
a) Indicating b) integrating
c) recording d) None of these
- SECTION-B**
- Note:** Objective type questions. All questions are compulsory. $(10 \times 1 = 10)$
- Q.11 Dimension of length is _____.
Q.12 Ohmmeter is used for measure _____.
Q.13 Name any one method of resistance measurement.
Q.14 Transistor is tested by _____.

Q.15 Define Energy .
Q.16 Define Q factor .
Q.17 Expand CRT.
Q.18 Hay's bridge is used for measurement of inductance.
True / False
Q.19 Tangent galvanometer is an example of absolute instrument. True / False
Q.20 Electronic instrument have higher sensitivity & lower weight. True / False

SECTION-C

- Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. $(12 \times 5 = 60)$
- Q.21 Explain Q meter .
Q.22 Explain construction & working of digital frequency meter.
Q.23 Explain maxwell bridge .
Q.24 Draw diagram of wagner earth devices.
Q.25 Draw and explain diagram of CRT
Q.26 Explain the working of stroboscope.
Q.27 Give the working and applications of moving iron type instrument .
Q.28 Discuss energy meter.
Q.29 What is the working principle of LCR bridge ?