

- 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 :
- Maxwell bridge
  - Transistor tester
  - Hay's Bridge

No. of Printed Pages : 4  
Roll No. ....

181533/121533/031533

### 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. (10x1=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 \_\_\_\_\_.

(2) 181533/121533/031533

- 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. (12x5=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 ?

(3) 181533/121533/031533