

- Q.33 Explain Rectifier type voltmeter.  
 Q.34 Explain 3-wattmeter method for power measurement.  
 Q.35 Discuss about digital frequency meter.

### SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 Along with labelled diagram explain the construction and working principle of CRT.  
 Q.37 Explain the working principle, construction and applications of function generator.  
 Q.38 Discuss the construction & working of principle of megger.

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 Roll No. ....

### 3rd Sem / Instrumentation & control

### Subject:- Test & measuring instrumensts

Time : 3Hrs.

M.M. : 100

### SECTION-A

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

- Q.1 Unit of energy is \_\_\_\_\_.  
 a) Watt                                      b) Volt  
 c) Joule                                      d) Henry
- Q.2 Megger is used for measurement of \_\_\_\_\_.  
 a) Resistance                              b) Voltage  
 c) Inductance                              d) Current
- Q.3 Which Instrument is the cheapest disregarding the accuracy  
 a) PMMC                                      b) Moving iron  
 c) Rectifier                                      d) Electrodynamicometer
- Q.4 In Electrodynamicometer wattmeter moving coil is also called \_\_\_\_\_.  
 a) Current coil                              b) Pressure coil  
 c) Both A&B                              d) None of these
- Q.5 Wheatstone Bridge is used to measure \_\_\_\_\_.  
 a) resistance                              b) capacitance  
 c) current                                      d) voltage

- Q.6 Unit of capacitance is \_\_\_\_\_  
 a) metre                      b) farad  
 c) ohm                        d) second
- Q.7 Maxwell Bridge is used for measurement of \_\_\_\_\_  
 a) Resistance                b) capacitance  
 c) Inductance                d) All of these
- Q.8 Transistor tester is used for testing of \_\_\_\_\_  
 a) resistance                b) capacitance  
 c) transistor                 d) inductance
- Q.9 Unit of time is \_\_\_\_\_  
 a) pascal                      b) kelvin  
 c) meter                        d) second
- Q.10 Application of instrumentation system is \_\_\_\_\_  
 a) medical instrument      b) pressure guage  
 c) control system            d) all of these

### SECTION-B

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

- Q.11 What is power.  
 Q.12 What is the application of energy meter.  
 Q.13 What is frequency.  
 Q.14 What is Q meter.  
 Q.15 Write one application of L C R Bridge.  
 Q.16 What is energy.  
 Q.17 Expand DSO.

- 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 Write the working of Q - meter.  
 Q.22 Write about classification of instrument.  
 Q.23 Explain Hey 's Bridge.  
 Q.24 Draw Diagram of wagner earth devices.  
 Q.25 Draw and Explain block diagram of D. S.O.  
 Q.26 Explain the working of stroboscope.  
 Q.27 Give the working and applications of moving iron type instrument.  
 Q.28 Explain Transistor tester.  
 Q.29 What is the working principle of LCR bridge?  
 Q.30 Explain Multimeter and how the voltage and current is measured using multimeter.  
 Q.31 Discuss Wheatstone bridge circuit.  
 Q.32 What is the need & importance of measurement?