

- Q.21 Write down specification of RLC Bridge. (CO4)
- Q.22 Write a short note on Logic probe. (CO5)

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## SECTION-D

**Note:** Long answer type questions. Attempt any two questions out of three questions. (2x8=16)

- Q.23 Discuss the use of C.R.O for measurement of voltage, frequency & time period. (CO3)
- Q.24 Explain RLC Bridge or Impedance Bridge with diagram. (CO4)
- Q.25 Explain the working of integrating type of DVM. (CO5)

**5th Sem / Automation & Robotics**

**Subject : Electronic Instrumentation and Measurement**

Time : 3 Hrs.

M.M. : 60

## SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (6x1=6)

- Q.1 The difference between the indicated value and true value of quantity is known as : (CO1)  
a) Absolute Error      b) Dynamic Error  
c) Systemic Error      d) None of the above
- Q.2 Multimeter can be used to measure : (CO1)  
a) DC Voltage      b) AC Voltage  
c) Resistance      d) All of the above
- Q.3 The brightness of spot on a CRO is controlled by: (CO2)  
a) Anode Voltage  
b) Heater Filament Voltage  
c) Grid Voltage  
d) Shield and grid

(20)

(4)

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(1)

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Q.4 Which type of signal is NOT commonly generated by a signal generator? (CO3)

- a) Sine wave
- b) Square wave
- c) Triangle wave
- d) Direct current (DC)

Q.5 In Maxwell's Induction Bridge, the unknown inductance is compared with: (CO4)

- a) A standard resistance
- b) A standard capacitance
- c) A standard inductance
- d) A standard resistor and capacitor

Q.6 Which of the following tools is typically used to observe the logic levels (high or low) at a specific point in a digital circuit?

- a) Oscilloscope
- b) Logic probe
- c) Function generator
- d) Logic pulser

### SECTION-B

**Note:** Objective/ Completion type questions. All questions are compulsory. (6x1=6)

Q.7 Define Accuracy. (CO1)

Q.8 Define Damping Torque. (CO1)

Q.9 A dual beam CRO has \_\_\_\_\_ electron gun (CO2)

Q.10 Define fluorescence. (CO3)

Q.11 Name the bridge used for measurement of mutual inductance. (CO4)

Q.12 Define a logic analyzer. (CO5)

### SECTION-C

**Note:** Short answer type questions. Attempt any eight questions out of ten questions. (8x4=32)

Q.13 Differentiate between direct and indirect methods of measurement. (CO1)

Q.14 How the range of voltmeter can be extended? (CO1)

Q.15 What are major components of CRT? (CO2)

Q.16 Write down a short note on blanking. (CO2)

Q.17 What are the various parts of signal generator? (CO3)

Q.18 Write a short note on Wheat Stone Bridge. (CO4)

Q.19 Give the disadvantages of Maxwell Induction bridge. (CO4)

Q.20 What is digital Voltmeter and explain its's types. (CO5)