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Q.4 LVDT is \_\_\_\_\_ type of device. (CO5)

- a) Inductive
- b) Resistive
- c) Capacitive
- d) None of the above

Q.5 A voltmeter should be connected in: (CO2)

- a) Series
- b) Parallel
- c) Either Series or Parallel
- d) Depends on Load Rating

Q.6 What does "C" stand for in "CT"? (CO1)

- a) Complementary
- b) Complex
- c) Current
- d) Complete

Q.1 O in CRO stands for: (CO4)

- a) Oscillator
- b) Oscillatory
- c) Oscilloscope
- d) Oxiloscope

Q.2 Which type of instrument is prone to "creeping"? (CO2)

- a) Voltmeter
- b) Power Factor Meter
- c) Ammeter
- d) Energy Meter

Q.3 Extremely low resistance can be measured by : (CO1)

- a) Earth Tester
- b) Meggar
- c) Ohmmeter
- d) The Kelvin Bridge

## SECTION-B

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

Q.7 Expand CRT ? (CO1)

Q.8 Range of an ammeter can be extended by connecting resistance in parallel. (T/F) (CO1)

Q.9 Define DSO? (CO4)

Q.10 Provide an example of a recording instrument? (CO1)

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(2)

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## 3rd Sem / Electrical

### Subject : Electrical Measurement & Instrumentation

Time : 3 Hrs. M.M. : 60

## SECTION-A

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

Q.1 O in CRO stands for: (CO4)

- a) Oscillator
- b) Oscillatory
- c) Oscilloscope
- d) Oxiloscope

Q.2 Which type of instrument is prone to "creeping"? (CO2)

- a) Voltmeter
- b) Power Factor Meter
- c) Ammeter
- d) Energy Meter

Q.3 Extremely low resistance can be measured by : (CO1)

- a) Earth Tester
- b) Meggar
- c) Ohmmeter
- d) The Kelvin Bridge

Q.11 Write down one use of Thermistor? (CO2)

Q.12 Give one application of indicating instruments? (CO1)

### SECTION-C

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

Q.13 Describe the 2-wattmeter method for power measurement in a 3 $\phi$  system? (CO3)

Q.14 Provide a brief explanation of a Meggar? (CO1)

Q.15 Explain construction and working of a bourdon tube? (CO1)

Q.16 Differentiate LVDT and RVDT? (CO5)

Q.17 Draw a block diagram of a digital multimeter and list three of its applications? (CO2)

Q.18 Compare 3 $\phi$  and 1 $\phi$  energy meter? (CO1)

Q.19 Explain the significance of reactive power in an electrical system? (CO3)

Q.20 Discuss importance of transducers in electrical measurement? (CO5)

Q.21 Explain one method for pH measurement using suitable diagram? (CO2)

Q.22 Write a note on Piezoelectric Transducer? (CO5)

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### SECTION-D

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

Q.23 Draw and explain construction and working principle of 3 $\phi$  energy meter (induction type)? (CO1)

Q.24 Compare moving coil and moving iron instruments? Give four merits and demerits of each? (CO3)

Q.25 What is frequency meter? Describe the dynamometer type frequency meter using a suitable diagram? (CO4)

(4020)

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