

- Q.24 What is photo transistor and explain its working?
- Q.25 Discuss about seismic transducer.
- Q.26 Write a note on measurement of pH.
- Q.27 Write a short note on micrometer.
- Q.28 Discuss about measurement of viscosity and explain any one method,
- Q.29 Draw the functional elements of measuring system.
- Q.30 Explain about LDR.
- Q.31 Define variable reluctance type tachogenerator.
- Q.32 Write a short note on strain gauge.
- Q.33 Discuss about the various light modulating techniques.
- Q.34 Input output configuration of instrumentation system.
- Q.35 Explain about the dial bevel protector and why it is used?

#### SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 What is LVDT and explain its working and applications also.
- Q.37 Define pH and various techniques to measure the pH value.
- Q.38 Define the strain gauge & explain its working.

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#### 6th Sem / Branch : IC Sub.: Advanced Measurement Techniques

Time : 3Hrs.

M.M. : 100

#### SECTION-A

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

- Q.1 For alkaline solution the pH. Value lies between  
a) 7 to 14                      b) 0 to 7  
c) 0 to 14                      d) None of the above
- Q.2 A measuring systems consists of \_\_\_\_\_  
a) Sensor  
b) Variable conversion element  
c) Signal Processing element  
d) All of these
- Q.3 Force = ?  
a) Acceleration/Mass    b) Velocity X time  
c) Mass x Acceleration    d) Velocity /Time
- Q.4 Unit of capacitor  
a) Hertz                      b) Farad  
c) Henry                      d) Ohm

- Q.5 LDR stands for
- Light dependent resonance
  - Linear dependent resister
  - Light differential resister
  - Light dependent resistor
- Q.6 Which device is used to measure the speed of an object?
- Thermometer
  - Odometer
  - Potentiometer
  - Galvanometer
- Q.7 The viscosity is measured by \_\_\_\_\_
- Hydrometer
  - Accelerometer
  - Viscometer
  - None of these
- Q.8 Which transducer an active transducer
- LVDT
  - STRAIN GAUGE
  - Piezo electric crystal
  - None of these
- Q.9 The last stage of a measuring system is also known as
- Detector transducer stage
  - Intermediate stage
  - Terminating stage
  - None of these

- Q.10 Unit of frequency \_\_\_\_\_
- Farad
  - No of cycle per second (Hertz)
  - Ohm
  - All of these

### SECTION-B

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

- Q.11 Define measurement.
- Q.12 Function of actuator of a measuring system.
- Q.13 What do you mean by Accuracy in measurement?
- Q.14 Differentiate between accuracy and precision.
- Q.15 Define instrumentation?
- Q.16 Define velocity.
- Q.17 SI unit of force.
- Q.18 What is resolution?
- Q.19 Define about tachometer?
- Q.20 Define sensitivity.

### SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Define stroboscope for angular velocity measurement.
- Q.22 Write a short note on stroboscope.
- Q.23 What is opto-isolator?