

## SECTION-C

**Note:** Long answer type questions. Attempt any three questions. 3x10=30

- Q.3 What is strain gauge? Explain its construction and working.
- Q.4 How are Transducers classified? Explain in detail.
- Q.5 Explain working of synchro Transmitter and receiver.
- Q.6 What is differential capacitor pick up? What are its advantages and disadvantages.
- Q.7 Explain construction, selection criteria, application of piezo electric Transducer.

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## 3rd Sem. / Electronics & Instrumentation

### Subject : Transducers

Time : 3 Hrs.

M.M. : 100

## SECTION-A

**Note:** Very Short Answer type questions. Attempt any 15 parts. (15x2=30)

- Q.1 a) Transducers.  
b) Measurement.  
c) Sensor.  
d) Differential capacitor Pick up.  
e) Thermocouple.  
f) Gauge factor.  
g) Load cell.  
h) Potentiometer.

- i) Thermistor.
- j) Digital transducer.
- k) Hall effect.
- l) Primary transducer.
- m) RVDT.
- n) Analog transducer.
- o) LDR.
- p) Sersmic pickup.
- q) Accelometer.
- r) LED.

### SECTION-B

**Note:** Short answer type questions. Attempt any ten parts 10x4=40

- Q.2 i) What are advantages of electrical Transduces.
- ii) Compare active and passive transduces.

(2)

073631

- iii) Explain working of hot wire anemometer.
- iv) What are applications of strain gauge.
- v) Explain working of Thermostor in brief.
- vi) Explain working of Induction potentiometer.
- vii) Draw the neat diagram of LVDT.
- viii) What is capacitive pickup.
- ix) Explain working of condenser microphone.
- x) Explain working of sesimic pick up.
- xi) What are applications of ultra sonic transduces.
- xii) Discuss working of Hall effect transduces.
- xiii) Explain working of Photo transistor.
- xiv) What is techogenerator. Explain.
- xv) What are applications of digital Transduces.

(3)

073631