SECTION-C

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

Q.3 Write the construction, working principles, advantages, disadvantage and limitation of Differential Capacitor pick up.

Q.4 Name various types of conversions. Explain I to V converters in details.

Q.5 What are Transducers? Classify the transducer differentiate between primary and secondary Transducers.

Q.6 Explain the principle of working, constructional details and applications of photo transistor.

Q.7 Write short note on any two:

(a) Piezoelectric Transducer

(b) Photo Diode

(c) Strain Gauge

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121542/031542

4th Sem. / IC,EI

Subject : Transducer & Signal Conditioning

Time : 3 Hrs. M.M. : 100

SECTION-A

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

Q.1 a) What is photo resistors?

b) Define gauge factor.

c) Encodes

d) Define active transducer

e) Expand LVDT

f) Write one application of load cell

g) Expand LED

h) Why filtering is required?

i) Demultiplexer

j) Electromagnetic pick up

k) Thermistor's

l) Signal conditioning

m) Given the disadvantages of accelerometer

n) What is the use of magneto-strictive transducer?

o) Electromagnetic pick up

p) Which transducer has negative temperature coefficient of resistance.

q) Expand LED

r) Linearization

SECTION-B

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

Q.2 i) Discuss carbon microphones

ii) Discuss linearization.

iii) List various Resistive temperature transducers.

iv) What are optical transducers?

v) Write about D/A converter.

vi) Describe electromagnetic flow meter.

vii) Describe condenser microphone.

viii) Write advantages of accelerometers.

ix) Write a short note on L.V.D.T.

x) What is seismic transducer?

xi) What is the need of signal conditioning?

xii) Why impedance matching required?

xiii) Explain the different forms of construction of thermistors.

xiv) Explain the concept of impedance matching.

xv) Explain the basic concept of variable inductance transducer.