Q.25 Write a short note on F to V converter.

Q.26 Explain current to voltage conversion in A.C. signal conditioning.

Q.27 Describe construction and working of inductive microphone.

Q.28 Describe construction of LVDT.

Q.29 Write a short note on Transducers.

Q.30 Describe Filtering and impedance matching for A.C. signal conditioning.

Q.31 Describe ADC.

Q.32 Describe differential capacitive pick up.

Q.33 Explain construction and working of accelerometer.

Q.34 Explain construction and working principle of capacitive transducer

Q.35 Describe working of carbon microphone.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

Q.36 Write short note on following:

a) Electromegnatice Pick-up

b) Capacitive Pick-up

Q.37 Explain construction and seismic pick-up.

Q.38 Explain construction and working of Bonded and Unbounded type of Strain gauges.

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Roll No. .....

3rd Sem / IC

Subject:- Transducer and Signal Conditioning

Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 An inverse transducer converts_____.

a) Electrical energy to any other form of energy

b) Electrical energy to mechanical energy

c) Mechanical displacement in to electrical energy

d) None of these

Q.2 Piezo electric transducer is_____

a) Passive transducer b) Active transducer

c) Inverse transducer d) Both B and C

Q.3 LVDT is_____ type of Transducer.

a) Mechanical b) Digital

c) Electrical d) Capacitive

Q.4 In A.C. signal conditions the normal range of carrier frequency is_____.

a) 50 Hz. to 20 KHz b) 100 KHz. to 200 KHz

c) 50 Hz. to 100 KHz d) None of these

Q.5 Microphone is used to measure _____ Signal.

a) Electric b) Megnatic

c) Acoustic d) Light

Q6 Which of the following transducer is of resistive type.

a) Stain gauge b) LDR

c) RTD d) All of these

Q.7 Potentiometer is a _____ type of transducer.

a) Mechanical b) Digital

c) Electrical d) Inductive

Q8 Which of the following is resistive transducer.

a) Stain gauge b) Pirani gauge

c) Photo emissive cell d) None of these

Q.9 Shaft encoder is a _____ type of transducer.

a) Electrical b) Analog

c) Digital d) None of these

Q.10 Sesmic Pickup is used to measure_____ signal.

a) Volt b) Current

c) Vibration d) Flow

SECTION-B

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

Q.11 Acceleration is measured by_____.

Q.12 Piezo electric transducer is an active transducer. (True/False)

Q.13 Seismic pick up is used to measure vibration. (True/False)

Q.14 What is Primary Transducer.

Q.15 Define error.

Q.16 Expand L.V.D.T.

Q.17 A transducer converts Mechanical energy into electrical energy. (True/False)

Q.18 Define Guage Factor.

Q.19 What Filtering does is signal conditioning.

Q.20 Define Linearity.

SECTION-C

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

Q.21 Write a short note on V to I converter.

Q.22 Explain two application of capacitive transducer.

Q.23 Explain working of thermistors and give two applications.

Q.24 Write short note on classification of transducer