Q.24 What is potentiometer.

Q.25 Discuss Piezo-electric transducer

Q.26 Explain Linearization.

Q.27 Write a short note on characteristic of transducer.

Q.28 Describe ADC.

Q.29 Explain construction and working of Inductive microphone.

Q.30 Explain construction and working principle of capacitive transducer

Q.31 Explain Digital transducer.

Q.32 Write a short note on F to V converter.

Q.33 Discuss capacitive microphone.

Q.34 Explain differential capasitive pick-up.

Q.35 Write a short note on V to I converter.

SECTION-D

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

Q.36 Explain construction and working of Bonded and Unbounded type of Strain gauges.

Q.37 Explain digital transducer with example.

Q.38 Write short note on following:-

a) ELectromegnatice Pick-up

b) Capacitive Pick-up

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3rd Sem / Instrumentation & Control
Subject:- Transducer and Signal Conditioning

Time : 3Hrs. M.M. : 100

SECTION-A

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

Q.1 Inductive transduction involves_____.

a) Change in capacitance

b) Change in resistance

c) Change in inductance

d) None these

Q.2 RTD is a _____type of Transducer

a) Inductive b) Capacitive

c) Resistive d) Digital

Q.3 Microphone is used to measure _____Signal.

a) Electric b) Magnatic

c) Acoustic d) Light

Q.4 Hot wire Anemometer is used to measure flow rate of thermely_____material.

a) Conductive b) Non-Conductive

c) Both A and B d) None of these

Q.5 A Piezo electric crystal generates voltage when subjected to_____force.

a) Electrical b) Mechanical

c) Hydraulic d) None of these

Q.6 Which of the following transducer is of resistive type.

a) Stain gauge b) LDR

c) RTD d) All of these

Q.7 What is the frequency of the supplied alternating current in India.

a) 70KHz. b) 30KHz.

c) 50Hz d) 60Hz.

Q.8 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.9 The Stain gauge is normally used for _____.

a) Dynamic measurement

b) Static measurement

c) Transient measurement

d) None of these

Q.10 Shaft Encoder is a _____ type of Transducer.

a) Analog b) Digital

c) Mechanical d) Electrical

SECTION-B

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

Q.11 Microphone convert_____energy into_____ energy.

Q.12 Mention any one material used for R.T.D

Q.13 Thermocouple is based on_____ effect.

Q.14 A transducer converts Mechanical energy into electrical energy. (True/False)

Q.15 Expand R.V.D.T.

Q.16 Piezo electric transducer is an active transducer. (True/False)

Q.17 Electromegntatic pickup is a resistive type of transducer. (True/False)

Q.18 Seismic pick up is used to measure vibration. (True/False)

Q.19 Shaft Encoder is a _____ type of transducer.

Q.20 Define error.

SECTION-C

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

Q.21 Write a short note on Transducers.

Q.22 Explain classification of transducer in short.

Q.23 Describe L.V.D.T.