Q.30 Explain the scheme to measure level using pressure transducer.

Q.31 Describe the diaphragm method for pressure measurement with its applications.

Q.32 Explain working principle of ultrasonic flow meter.

Q.33 Describe the working principle of ultrasonic method for level measurement.

Q.34 Explain working of resistive level measurement method.

Q.35 Discuss please Bridgman gauge method for pressure measurement.

SECTION-D

Note : Long Answer type question. Attempt any two questions. (2x10=20)

Q.36 Describe construction of hot wire anemometer for flow measurement with advantages and disadvantages.

Q.37 Explain scheme used to measure level by using buoyancy method.

Q.38 Explain scheme for measurement of pressure using bourdon tube with advantages and disadvantages.

Roll No.....

5th Sem / IC,EI

Subject : Process Instrumentation

Time : 3 Hrs. **M.M. : 100**

SECTION-A

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

Q.1 Principle used in ultrasonic flow meter is _____.

a) Doppler Effect b) Seeback effect

c) Hall Effect d) None of these

Q.2 Pascale is unit of_____.

a) Nuclear Radiation b) Sound

c) Weight d) Pressure

Q.3 Electro magnetic flow meter is based on_____.

a) Electromagnetic Induction

b) Bernoulli Principle

c) Ohm's Law

d) Newton's Law

Q.4 What does the Diaphragm measure?

a) Time b) Level

c) Temperature d) Pressure

Q.5 Working Principle of thermocouple

a) Halls Effect

b) Electromagnetic Radiation

c) Seeback effect
d) None of these

Q.6 What does the thermocouple measure?
a) Distance b) Time
c) Level d) Temperature

Q.7 What is the unit of pressure?
a) Second b) Meter
c) Pascal d) Gram

Q.8 LVDTis a _____ type of transducer.
a) Resistive b) Capacitive
c) Mechanical d) Inductive

Q.9 RVDT is a transducer use to measure _____ displacement.
a) Liner b) Angular
c) Capacitive d) Inertia

Q.10 Unit of Temperature is _____.
a) Celsius b) Fahrenheit
c) Second d) Both A & B

SECTION-B

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

Q.11 Radiation pyrometer is used to measure _____.

Q.12 What is flow rate?

Q.13 Pirani gauge is used to measure ____ pressure.

Q.14 What is bellow?

Q.15 Rotameter cannot be used in _____ position to measure flow of Fluid.

Q.16 What is transducer?

Q.17 _____ wire anemometer is used to measure flow rate.

Q.18 Give one advantage of ultrasonic flow meter.

Q.19 Full form of RTD in _____.

Q.20 What is ultrasonic transducer?

SECTION-C

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

Q.21 Describe significance of temperature measurement and unit of temperature.

Q.22 Explain electromagnetic flow meter with its application.

Q.23 Describe importance of level measurement and unit of level.

Q.24 Explain uses of IR detectors.

Q.25 Describe thermistor along with its applications.

Q.26 Write short note on hot wire anemometer.

Q.27 Describe radiation pyrometer and its disadvantages.

Q.28 Explain how thermocouples are used for low pressure measurement.

Q.29 Describe the working of U-Tube manometer.