

Question Bank

Name of subject: Industrial Measurements

Subject code: 17434

Semester: IV

Branch: - IS3G/IE3G/EJ3G

UNIT –TEST I

Chapter 1:TRANSDUCERS(16M)

3 Marks

- 1) What is transducer? Write one example of active & passive transducer
- 2) Define Primary & secondary transducer & give one example of each.
- 3) Classify each of the following transducers in two different categories:
 - i) LVDT
 - ii) Bourdon Tube
 - iii) Strain Gauge
- 4) Write the Advantages & Disadvantages of L.V.D.T
- 5) What is piezoelectric effect? Name two piezoelectric materials.
- 6) Write the parameter measured by:
 - i) LVDT
 - ii) Bellows
 - iii) Piezoelectric Transducer
 - iv) Linear & angular Potentiometer
 - v) Capsule
 - VI) Diaphragm

4 Marks :

- 7) Draw & Explain the block diagram of Instrumentation System
- 8) Write the selection Criteria of transducer (Any 8)
- 9) Explain the construction & working of LVDT.
- 10) Explain the construction & working of piezoelectric type transducer.
- 11) Explain the construction & working of capacitive transducer.

Chapter 2:PRESSURE MEASUREMENT(20M)

3 Marks

- 12) Explain with neat diagram absolute pressure, Gauge pressure, Atmospheric Pressure & Vacuum Pressure
- 13) Write the Advantages & Disadvantages & applications of Bourdon tube
- 14) List the three different units of pressure

4 Marks

- 15) Draw the diagram of C type Bourdon tube & explain its working
- 16) Explain different pressure measurement using U-tube Manometer
- 17) Explain the working of Dead Weight Tester with neat diagram
- 18) Explain how pressure can be measured by using Bourdon tube with LVDT
- 19) Explain how pressure can be measured by using Diaphragm with strain gauge
- 20) Draw & Explain the working of Bellows.
- 21) Draw & Explain the working of Diaphragm
- 22) Draw & Explain the working of Capsule
- 23) Explain the inclined type manometer for measurement of pressure

- **Chapter 3:FLOW MEASUREMENT(14M)**

3 Marks

24 Explain Reynolds no. with its formula for justifying Laminar or Turbulent Flow

25 State any 2 advantages, disadvantages & applications of Rota meter.

26 Compare between time difference & Doppler type flow meter (any 4 points)

27 State any two advantages, disadvantages & applications of electromagnetic flow meter.

4 Marks

28 Explain the construction & working of Rotameter type flowmeter.

29 Explain the construction & working of electromagnetic flow meter with neat labeled diagram.

30 Describe working principle of Ultrasonic flow meter