22372

12425

3 Hours / 70 Marks Seat No. | | | | | | | | |

Instructions : (1) All Questions are *compulsory.*

(2) Illustrate your answers with neat sketches wherever necessary.

(3) Figures to the right indicate full marks.

(4) Use of Non-programmable Electronic Pocket Calculator is permissible.

(5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any FIVE of the following : **10**

(a) Define static characteristics.

(b) Define accuracy.

(c) State characteristics of linear variable differential transformer.

(d) List application of dynamometer.

(e) Give any two desirable characteristics of bonded type strain gauge.

(f) Give the types of microphone.

(g) Give advantages of electrical tachometer.

2. Attempt any THREE of the following : **12**

(a) Explain generalized measuring system with block diagram.

(b) Describe working principle of inductive transducer.

(c) Describe working principle of resistive temperature detector.

(d) Explain float type level measurement.

3. Attempt any THREE of the following : **12**

(a) Differentiate between active transducers and passive transducers.

(b) Describe the types of potentiometer.

(c) Explain the neat sketch of optical pyrometer.

(d) Describe working principle & construction of rotameter.

(e) Explain working principle and construction of eddy current generation tachometer.

4. Attempt any THREE of the following : **12**

(a) Give any four desirable characteristics of bonded type strain gauge.

(b) Describe working principle of thermocouple.

(c) Compare orifice plate and venturimeter.

(d) Explain with neat sketch of carbon granules type microphone.

(e) Describe functions of signal conditioning.

5. Attempt any TWO of the following : **12**

(a) Explain with neat sketch working principle and construction of McLeod gauge.

(b) Explain venturimeter with its advantages and disadvantages.

(c) Differentiate between A.C. techogenerator and D.C. techogenerator.

6. Attempt any TWO of the following : **12**

(a) Explain with neat sketch the working principle and construction of radiation pyrometer.

(b) Explain block diagram of digital data acquisition system.

(c) Explain working of D.C. Wheatstone bridge.
