

22443

21819

3 Hours / 70 Marks

Seat No.

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- Instructions* –
- (1) All Questions are *Compulsory*.
 - (2) Answer each next main Question on a new page.
 - (3) Illustrate your answers with neat sketches wherever necessary.
 - (4) Figures to the right indicate full marks.
 - (5) Assume suitable data, if necessary.
 - (6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.
 - (7) Preferably write the answers in sequential order.

Marks

1. **Attempt any FIVE of the following:** **10**
 - a) Enlist different types of high pressure gauges.
 - b) Classify dynamometer's,
 - c) List the different applications of potentiometer.
 - d) Name material used for diaphragms.
 - e) Define Reynolds number. State its formula.
 - f) List the different types of vibration measuring devices.
 - g) State the advantages of stroboscope.

2. **Attempt any THREE of the following:** **12**
 - a) Explain term-fidelity and overshoot.
 - b) Compare infra-red sensor and frequency modulation transmitter.
 - c) Describe the working principle of RTD. Explain with neat sketch.
 - d) Draw the construction and explain working of nutating disc type positive displacement meter.

P.T.O.

- 3. Attempt any THREE of the following:** **12**
- a) Distinguish between Threshold and Resolution.
 - b) List the different types of errors in measurement system and explain any one.
 - c) Explain construction and working of R.V.D.T.
 - d) Explain radiation pyrometer with neat sketch.
- 4. Attempt any THREE of the following:** **12**
- a) Draw creep curve for force transducer. State its significance.
 - b) Explain the construction and working of thermocouple vacuum gauge.
 - c) Describe working principle of C-type Bourdon tube. List material used in it.
 - d) Explain FFT analyser with block diagram of the FFT spectrum analyser.
 - e) Explain how sound is measured by carbon-microphone.
- 5. Attempt any TWO of the following:** **12**
- a) State the working principle of piezo-electric transducer and its applications.
 - b) State the application of orifice meter Venturi tube and Pitot tube.
 - c) Draw the constructional details of hair hygrometer? State its application.
- 6. Attempt any TWO of the following:** **12**
- a) Draw and explain the working of coriolis flowmeter.
 - b) Explain the working and application of bonded strain gauge.
 - c) Explain with neat sketch working principle of Eddy current generation type tachometer.
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