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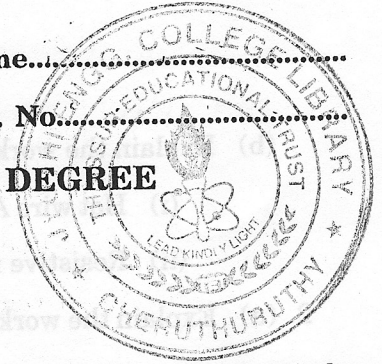
Name.....

Reg. No.....

**FIFTH SEMESTER B.TECH. (ENGINEERING) DEGREE
EXAMINATION, OCTOBER 2011**

AI 09 506—TRANSDUCERS

(2009 Admissions)



Time : Three Hours

Maximum : 70 Marks

Part A

All questions compulsory.
Each question carries 2 marks.

1. What are primary and secondary transducers ?
2. What is Hall Effect ?
3. Define Gauge factor.
4. What is a dynamometer ?
5. What is the function of Consistency meter ?

(5 × 2 = 10 marks)

Part B

Answer any four questions.
Each question carries 5 marks.

1. Explain the principle and working of thermistor.
2. Explain the working of Thermoelectric Transducer.
3. Explain any one method to measure displacement of a body.
4. Write brief notes on load cells.
5. Explain the working of bonded Strain Gauge.
6. Explain the working of Saybolt's viscometer.

(4 × 5 = 20 marks)

Part C

1. (a) Explain the working of the following :—
 - (i) Potentiometer.
 - (ii) Resistive optical Radiation transducer.

Or

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(b) Explain the working of :

- (i) Hot wire Anemometer.
- (ii) Resistive magnetic flux transducer.

2. (a) Explain the working of LVDT along with its characteristics.

Or

(b) Explain the working of a capacitive and a piezoelectric transducer.

3. (a) Explain a method each to measure velocity and acceleration of a body.

Or

(b) Explain a method each to measure force and torque.

4. (a) Explain a method to measure vibration of body and discuss its vibration characteristics.

Or

(b) Explain the working of a digital pH meter.

(4 × 10 = 40 marks)

Part B

Answer any four questions.
Each question carries 5 marks.

- 1. Explain the principle and working of thermistor.
- 2. Explain the working of Thermoelectric Transducer.
- 3. Explain any one method to measure displacement of a body.
- 4. Write brief notes on load cells.
- 5. Explain the working of bonded strain Gauge.
- 6. Explain the working of Saybolt's viscometer.

Part C

1. (a) Explain the working of the following -

- (i) Potentiometer.
- (ii) Resistive optical Radiation transducer.

Or

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