D 70302

(Pages : 2)

Name..

Reg. No..
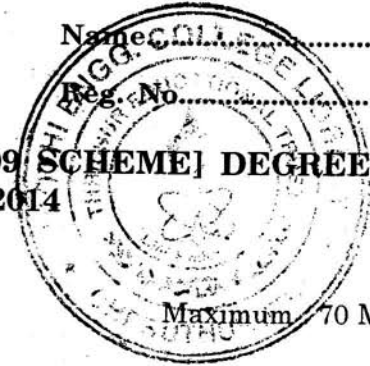
FIFTH SEMESTER B.TECH. (ENGINEERING) [09 SCHEME] DEGREE EXAMINATION, NOVEMBER 2014

AI 09 506—TRANSDUCERS

Time : Three Hours

Maximum : 70 Marks

Part A

Answer all questions.
Each question carries 2 marks.

1. What is a potentiometer ?

2. Define gauge factor.

3. What is a magnetostrictive transducer ?

4. What are Bourdon tubes ?

5. What is the principle of a consistency meter ?

(5 × 2 = 10 marks)

Part B

Answer any four questions.
Each question carries 5 marks.

1. Explain the classification of transducers.

2. Explain the working of strain gauge.

3. Explain the working of an ionization transducer.

4. Explain Hall effect.

5. Explain a method to measure force of a body.

6. Explain the working of Saybolt's viscometer.

(4 × 5 = 20 marks)

Part C

Answer all questions.
Each question carries 10 marks.

1. (a) Explain the working of resistive magnetic flux transducer.

Or

(b) Explain the working of resistive optical radiation transducer.

Turn over

2. (a) Explain the working of electromagnetic and thermoelectric transducers.

Or

(b) Explain the working of capacitive and photoelectric transducers.

3. (a) Explain a method to measure velocity and torque.

Or

(b) Explain the working of any two types of dynamometer.

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

Or

(b) Explain the working of a vibration measurement circuit.

(4 × 10 = 40 marks)