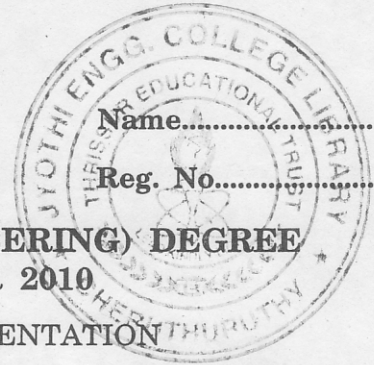


C 15287



**FOURTH SEMESTER B.TECH. (ENGINEERING) DEGREE
EXAMINATION, DECEMBER 2010**

EC 2K 406—ELECTRONIC INSTRUMENTATION

Time : Three Hours

Maximum : 100 Marks

Answer all questions.

- I. (a) Explain the basic principle of operation of Electronic Ammeter.
(b) Draw a neat block diagram of digital multimeter.
(c) What are active and passive transducers ? Explain. Give examples.
(d) Explain the characteristics and applications of Thermister.
(e) Explain the advantages of spectrum Analyzer.
(f) Give an account on Q-meter.
(g) Explain the features of frequency counter.
(h) What is a Logic analyzer ? Explain.

(8 × 5 = 40 marks)

- II. (a) Draw a neat block diagram of Electronic voltmeter. Explain its principle of operation.

Or

- (b) Describe the various types of errors in an Instrumentation system.

- III. (a) Explain in detail the principles of thermoelectric and magnetic electric type transducers with neat sketches.

Or

- (b) Draw a neat block diagram of typical Instrumentation system. Explain its principle in detail.

- IV. (a) Draw a neat block diagram of spectrum analyzer and explain its principle of operation.

Or

- (b) Draw a neat sketch of synthesised signal generator. Explain its principle of operation in detail.

- V. (a) Draw a neat block diagram of μ p based temperature control system. Explain its principle of operation.

Or

- (b) Draw a neat block diagram of logic analyzer. Explain its principle of operation in detail.

(4 × 15 = 60 marks)