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Name.....

Reg. No.....

**FOURTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION
JUNE 2008**

AI 04 405—ELECTRONIC INSTRUMENTATION AND MEASUREMENTS

(2004 admissions)

Time : Three Hours

Maximum : 100 Marks

Answer all questions.

- I. (a) State the advantages of digital meters over analog meters.
(b) Explain the various static characteristics of instruments.
(c) Explain the first order response to the instrument for standard test signal. Comment.
(d) What is meant by digital instruments ? Explain it with necessary block diagrams.
(e) Write short notes on weighted resistor DAC.
(f) What is an integrating ADC ? Mention its principle.
(g) State the principle of X-Y recorder and explain it.
(h) Write short notes on LCD liquid crystal display.

(8 × 5 = 40 marks)

- II. (a) What are the standards of measurements ? Explain each one briefly.

Or

- (b) Explain in detail the various static characteristics of analog measuring instruments.

- III. (a) What are the primary and secondary standards of frequency ? Compare these two standards.

Or

- (b) With necessary diagram, explain the operation of low frequency signal generator.

- IV. (a) Draw the weighted resistor type ADC and explain its operation.

Or

- (b) What is meant by DAC ? Explain the R2R type DAC.

- V. (a) What are special purpose oscilloscopes ? Explain with suitable diagrams.

Or

- (b) What do you mean by thermocouple instrument ? Where is it used ? Explain in detail.

(4 × 15 = 60 marks)