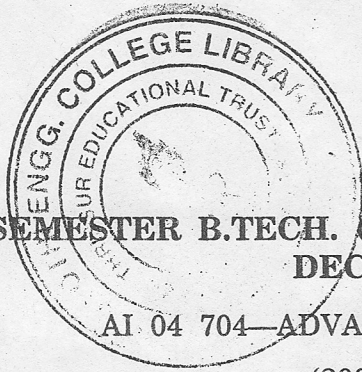


D 23187



Name.....

Reg. No.....

SEVENTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION
DECEMBER 2011

AI 04 704—ADVANCED INSTRUMENTATION

(2004 Admissions)

Time : Three Hours

Maximum : 100 Marks

Answer all questions.

Part A

- I. (a) Write short notes on wire electrode type hygrometer.
- (b) Define MEMS. State its advantages.
- (c) Write short notes of phase measurement.
- (d) Define the term peak frequency.
- (e) List out the sources and remedies of noise in a instrumentation systems.
- (f) Compare Virtual versus Real instrumentation.
- (g) State the advantages of RS232C common instrument interface.
- (h) Write short notes on enhanced parallel port.

(8 × 5 = 40 marks)

Part B

- II. (a) Explain different methods of Moisture Measurement. Mention the advantages and disadvantages of each method.

Or

- (b) Describe in detail the operation of semiconductor sensors.

(15 marks)

- III. (a) With the neat diagram explain the Capacitance measurement technique.

Or

- (b) Draw the block diagram to measure the frequency and explain in detail.

(15 marks)

- IV. (a) Describe in detail the digital technique of voltage measurement.

Or

- (b) Explain any *one* real time application of Virtual Instrumentation.

(15 marks)

- V. (a) Write a detailed notes on :

(i) VSB.

(ii) VXI.

Or

- (b) Draw and explain the virtual instrumentation software architecture.

(15 marks)

[4 × 15 = 60 marks]