

Name :

Reg. No:



SEVENTH SEMESTER B.TECH DEGREE EXAMINATION, OCTOBER 2017

AI 09 702 – ADVANCED INSTRUMENTATION
(2009 Admission)

Time : Three Hours

Maximum : 70 Marks

PART – A

1. What is a dew cell?
2. What is MEMS?
3. State the principle of measuring Q of a ringing circuit.
4. State the principle of working of dual slope ADC.
5. State two features of MXIbus.

(5 x 2 = 10 Marks)

PART – B

- II (a) Explain the working of electrolysis type hygrometer.
- (b) Write notes on semi conductor sensors.
- (c) Explain a method to measure capacitance.
- (d) Write notes on noise in instrumentation systems.
- (e) Explain the applications of virtual instrumentation system.
- (f) Write notes on Rs. 485 A standard.

(4 x 5 = 20 Marks)

PART – C

- III (a) Explain the working of a dew point meter.
(Or)
- (b) Write notes on
(i) Film sensors (ii) Nano sensors
- IV (a) Explain a digital method to measure ratio of two frequencies.
(Or)
- (b) Explain a digital method to measure periodic time of a signal.
- V (a) Explain the working of a successive approximation ADC
(Or)
- (b) Explain about virtual instrumentation.
- VI (a) Explain the following
(i) RS 232 C
(ii) RS 422 A
(Or)
- (b) Explain the following.
(i) GPIB
(ii) VISA

(4 x 10 = 40 Marks)
