

# SATHYABAMA UNIVERSITY

(Established under section 3 of UGC Act, 1956)

Course & Branch: B.E – EEE

Title of the paper: Instrumentation Systems

Semester: V

Sub.Code: 414503

Date: 27-04-2009

Max.Marks: 80

Time: 3 Hours

Session: AN

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## PART – A

(10 x 2 = 20)

Answer All the Questions

1. Define Accuracy and Precision.
2. What is zero of the system?
3. What is Piezo electric effect?
4. Explain the principle of strain gauge.
5. Define VCO.
6. What are charge amplifiers?
7. Define Telemetry.
8. Explain the principle of phase modulation.
9. What are Nixie tubes?
10. Define Alpha numeric display.

PART – B  
Answer All the Questions

(5 x 12 = 60)

11. Explain the functional elements of measurement system with suitable block diagram.  
(or)
12. Explain Dynamic characteristics in detail (any three).
13. Explain the construction and operation of LVDT in detail.  
(or)
14. Explain the application of instrumentation to a nuclear power plant.
15. Explain the construction and working of Instrumentation Amplifier in detail.  
(or)
16. Write short notes on (a) PLL (b) Sample and Hold Circuit.
17. Explain Time Division Multiplexing in detail. Compare its advantages and disadvantages with FDM.  
(or)
18. Explain DC Telemetry system in detail with block diagram.
19. Explain construction and working of LCD along with its different types.  
(or)
20. Write short notes on (a) Strip chart recorder  
(b) Seven segment display

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