AUGUST 2007

2007 MAHATMA GANDI UNIVERSITY
I B.TECH DEGREE EXAMINATIONS
VIIISEMESTER ELECTRICAL AND ELECTRONICS ENGINEERING
INSTRUMENTATION (E)

TIME : 3 HOUR
MARK : 100

ANSWER ALL QUESTIONS

PART A[10*2=20]

1. Briefly explain the classification of transducers.
2. Briefly explain the static characteristics of Transducers.
3. Define and explain guage factor and its significance.
4. Briefly explain what is equivalent circuit.
5. Explain the application of thermocouples.
6. Discuss the characteristics of thermistors.
7. Discuss the application of optical transducers.
8. Write short note on Ultrasonic flow meter.
9. Write short note on McLeod guage.
10. Explain with block schematic hygro meter.

ANSWER ANY FIVE QUESTIONS QUESTIONS CARRY EQUAL MARKS [16*5=80]

11. (a) Enumerate the characteristics of Isolation amplifier.

(b) Explain loafing affect.

12. Explain the principle of operation of instrumentation amplifier with a diagram.
13. Explain the working principle of LUDT.
14. Briefly explain the working principle and classification of resistance potentio-meter.
15. Briefly explain the working principle and operation of RTD (Resistance Temperature Detector).
16. Explain the classification and characteristics of pyrometers.
17. Explain strain guage axelo-meters. Explain the working principle and operation.
18. Explain the working principle of Ultrasonic flow meter.
19. Explain the principle of spatial encoder for angular measurement.
20. Explain with block diagram wave analysis and the process of analysis.