

F 3533

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Reg. No.....

Name.....



B.TECH. DEGREE EXAMINATION, NOVEMBER 2014

Eighth Semester

Branch : Electrical and Electronics Engineering

INSTRUMENTATION (E)

(Old Scheme—Prior to 2010 Admissions)

[Supplementary/Mercy Chance]

Time : Three Hours

Maximum : 100 Marks

Part A

Answer all question.

Each question carries 4 marks.

1. Explain static characteristics of transducers.
2. What is loafing effect ?
3. Explain the working principle of resistance strain gauges.
4. Explain types of capacitive transducers.
5. Write a note on thermo electric laws.
6. Explain the characteristics of thermister.
7. Explain absolute acceleration.
8. Write a note on optical transducer.
9. Write a note on McLaud gauge.
10. Write the schematic diagram of spectrum analyzer.

(10 × 4 = 40 marks)

Part B

Answer all questions.

Each question carries 12 marks.

11. Explain instrumentation amplifiers with a diagram.

Or

12. What is an instrumentation system ? Explain functional description of instrumentation system.
13. Explain the working principle of LVDT and circuitry.

Or

14. Explain different types of displacement transducers.

Turn over

15. Explain the resistance temperature detectors.

Or

16. (a) Explain radiation and optical pyrometers.

(b) Write a short note on Thermocouples.

17. Explain the transit type and Doppler flow meter.

Or

18. Explain strain gauge accelerometer and piezo electro accelerometer.

19. Explain :

(a) Pirani Gauge.

(b) Ionization gauge.

(c) Thermal conductivity gauge.

Or

20. Explain angular digital encoder with a diagram.

(5 × 12 = 60 marks)

