G 740 (Pages : 2) Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, MAY 2014

Seventh Semester

Branch : Electronics and Communication Engineering

EC 010 704—ELECTRONIC INSTRUMENTATION (EC)

(Improvement/Supplementary)

[2010 Admissions]

Time : Three Hours Maximum : 100 Marks

Part A

Answer **all** *questions.*
Each question carries 3 *marks.*

1. Explain the term instrument calibration.
2. Brief the principle of operation of piezoelectric transducer.
3. Explain the operation of Wein bridge.
4. How stripchart recorders are used in recording ?
5. Mention any *one* method, for the measurement of current, without disturbing the electrical circuit.

(5 × 3 = 15 marks)

Part B

Answer **all** *questions.*
Each question carries 5 *marks.*

6. Describe the measurement system with the help of a neat block diagram.
7. Explain the principle of operation of ultrasonic transducers.
8. Explain the principle of operation of optocoupler.
9. Explain the working of a spectrum analyzer.
10. Brief the principle of measurement of pressure.

(5 × 5 = 25 marks)

Part C

Answer **all** *questions.*
Each question carries 12 *marks.*

11. Explain the performance characteristics of instrument.

Or

12. Discuss the classification of errors occur in measurement procedure.

Turn over

13. Explain the classification of transducers.

Or

14. Explain the principle of working of strain gauge.

15. Explain the block diagram of telemetry system.

Or

16. Compare FDM and TDM techniques.

17. Explain different recording techniques and X-Y recorder in detail.

Or

18. Explain the principle of PLC.

19. Discuss the techniques for PH measurement and pressure measurement.

Or

20. Explain the different methods for temperature measurement.

(5 × 12 = 60 marks)