G 1324 (Pages : 2) Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, MAY 2015

Seventh Semester

Branch : Applied Electronics and Instrumentation

INDUSTRIAL INSTRUMENTATION—II (A)

(Old Scheme—Prior to 2010 Admissions)

[Supplementary]

Time : Three Hours Maximum : 100 Marks

Part A

Answer **all** *questions.*
Each question carries 4 *marks.*

1. Define Viscosity index and explain about Redwood Voscometer.
2. Explain the terms Absolute humidity and Relative humidity.
3. Describe the basic principle and operation of a non-dispersive IR spectrometer.
4. Define chromatography and explain about proportional counters.
5. Explain various types of electrodes used to measure pH of a solution.
6. Write the working of automatic electric psychometer.
7. Explain any one method of measuring moistures.
8. Define dielectric constant and explain about electrical conductivity.
9. Write a note on Instrumentation and control of power plants.
10. Explain a diesel electrical power plant.

(10 × 4 = 40 marks)

Part B

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

11. Draw the schematic diagram and discuss the principle and basic theory of Gas chromatography.

Or

12. Discuss about the relative humidity sensors available for moisture measurement in liquid.

Turn over

13. Explain the principle and working of mass spectrometer.

Or

14. Differentiate between Impulse turbine and Reaction turbine.

15. Define displacement and speed and explain the measurement of speed using electronic method.

Or

16. Write a short note on nuclear reactors.

17. Give a neat sketch of a pH electrode governing mechanism.

Or

18. Explain the principle of stroboscopic method.

19. Write the working principle of Geiger-Muller counter.

Or

20. Define acceleration and explain any one method of measurement of acceleration.

(5 × 12 = 60 marks)