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Reg. No.....

Name.....

**B.TECH. DEGREE EXAMINATION, NOVEMBER 2014**

**Seventh Semester**

Branch : Applied Electronics and Instrumentation

**INDUSTRIAL INSTRUMENTATION—II (A)**

(Old Scheme—Prior to 2010 Admissions)

[Supplementary/Mercy Chance]

Time : Three Hours

Maximum : 100 Marks

*In Part A all the questions are compulsory.*

**Part A**

*Answer all questions.*

*Each question carries 4 marks.*

1. Explain any *one* method for measuring electrical conductivity.
2. Explain working principle of hygrometer.
3. Explain briefly the operating principles of conductivity meters.
4. Describe Electrical conductivity of solutions.
5. Explain Thermal conductivity Analyses.
6. Describe Infrared Gas Analyser.
7. What is a Tachometer ? Explain any one of the mechanical Tachometer.
8. Explain Acceleration pick-up with strain gauges.
9. Explain Gas Turbine power plants.
10. Explain Instrumentation and control of power plants briefly.



(10 × 4 = 40 marks)

**Part B**

*Answer all questions.*

*Each question carries 12 marks.*

11. Explain any *three* types of viscosity measurement.

*Or*

12. Explain various methods for measuring density.

**Turn over**

13. Explain the various types of electrodes for measuring pH.

*Or*

14. Discuss in detail cell construction and operating principles.

15. Explain the measurement of Gas constituents by Thermal conductivity method.

*Or*

16. Explain Gas chromatography and Mass Spectrometer.

17. Explain various Electronic methods for speed Measurement.

*Or*

18. Explain various types of acceleration.

19. Explain Nuclear Reactors and fluctuating wads on power plants.

*Or*

20. Explain Diesel Electrical Power plants.

(5 × 12 = 60 marks)

