Name:

Reg. No:

EIGHTH SEMESTER B.TECH (ENGINEERING) DEGREE EXAMINATION, DECEMBER 2012

AI 04 805 (F) - POWER PLANT INSTRUMENTATION AND CONTROL (2004 Admissions)

Time: Three Hours

Maximum: 100 Marks

PART - A Answer all questions.

- I (a) Discuss briefly a method of governing of steam turbines.
 - (b) Explain the effect of air fuel ratio on Boiler heat losses.
 - (c) What is a spillway? Explain the types of spillways.
 - (d) Explain the steam pressure control system with a schematic diagram.
 - (e) Explain the measurement of electric resistance.
 - (f) What is a moderator? Name common moderators and discuss their advantages and limitations.
 - (g) Describe Primary air system of a steam power plant.
 - (h) Write short notes on cyclone dust collector.

 $(8 \times 5 = 40 \text{ Marks})$

PART - B

- II (a) Describe with a neat sketch the basic steam temperature control system.
 - (b) Explain in detail objectives and classifications of Interlocking systems.
- III (a) Describe Orsat apparatus used for flue gas analysis.

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- (b) Describe in detail the oxygen meter.
- IV (a) Explain the methods used for detecting nuclear radiation.

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- (b) Describe PLC method of power plant automation.
- V (a) Explain in detail the instruments used for measuring p-H values?

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(b) Explain the various types of pressure measurement devices.

 $(4 \times 15 = 60 \text{ Marks})$
