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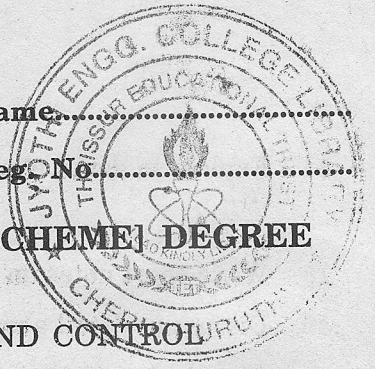
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Name.....

Reg. No.....

**SEVENTH SEMESTER B.TECH. (ENGINEERING) [09 SCHEME] DEGREE
EXAMINATION, NOVEMBER 2015**

AI 09 706 L17—POWER PLANT INSTRUMENTATION AND CONTROL



Time : Three Hours

Maximum : 70 Marks

Part A

Answer all questions.

Each question carries 2 marks.

1. List out the advantages of thermal power plants.
2. Name some nuclear fuels.
3. List out the functions of a superheater.
4. State the principle of a radiation detector.
5. Mention the methods to control steam pressure.

(5 × 2 = 10 marks)

Part B

Answer any four questions.

Each question carries 5 marks.

6. What are the factors to be considered in selecting a power plant ?
7. What are condensers ?
8. Explain the working principle of a flue gas analyzer.
9. Compare PLC and DCS automation strategy for thermal power plants.
10. How will you measure PH ?
11. Discuss the method of monitoring voltage in hydroelectric power plant.

(4 × 5 = 20 marks)

Part C

Answer all questions.

Each question carries 10 marks.

12. Explain the different types of boilers.

Or

13. Explain the basic building blocks of a thermal power plant.

Turn over

14. Explain in detail about steam temperature measurement.

Or

15. Write short notes on power factor measurement and frequency measurement in power plants.

16. Discuss in detail about interlocks in boilers.

Or

17. Explain in detail about single element and two element drumlevel control.

18. Describe in detail about steam pressure control.

Or

19. Explain in detail about nuclear power generation.

(4 × 10 = 40 marks)