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**Question Paper Code: 31034**

B.E. / B.Tech. DEGREE EXAMINATION, APRIL 2015.

Third Semester

Electrical and Electronics Engineering

01UEE304 - POWER PLANT ENGINEERING

(Regulation 2013)

Duration: Three hours

Maximum: 100 Marks

Answer ALL Questions.

PART A - (10 x 2 = 20 Marks)

1. Why condenser is attached in a steam power plant?
2. What is calorific value of fuel?
3. List the disadvantages of gas turbine power plant.
4. Why the cooling system is necessary for a diesel engine?
5. Define nuclear fusion.
6. List the nuclear power plant safety.
7. List any four applications of diesel power plant.
8. What is meant by Kaplan turbine?
9. List the factors to be considered while choosing a site for steam power station.
10. Define load factor.

PART - B (5 x 16 = 80 Marks)

11. (a) Draw the layout of steam power plant and explain the various components and working. (16)

Or

- (b) Explain in detail about feed water treatment of thermal power plant. (16)

12. (a) Explain in detail about the various components of gas turbine power plants. (16)

Or

- (b) Describe in detail about the layout diagram of diesel power plant. (16)

13. (a) With a neat sketch, explain in detail about pressurized water reactor of nuclear power plant. (16)

Or

- (b) With a neat sketch, explain in detail about boiling water reactor of nuclear power plant. (16)

14. (a) Explain in detail about essential elements of hydroelectric power plant. (16)

Or

- (b) Explain in detail about construction and working operation of fuel cell and also mention the advantages and disadvantages. (16)

15. (a) (i) Explain in details about load duration curve on power plant. (10)

- (ii) Describe the principles of economics scheduling. (6)

Or

- (b) Describe the various cost involved in construction of power plant. (16)
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