



BE /B.Tech(Full Time) DEGREE END SEMESTER EXAMINATION –NOV 2011

ELECTRICAL AND ELECTRONICS ENGINEERING BRANCH

SECOND SEMESTER - (REGULATION 2004)

ME191– POWER PLANT ENGINEERING

Time : 3 hr

Max. Marks: 100

Answer ALL Questions

PART – A (10 x 2 = 20 Marks)

1. Draw the PV and TS diagram of steam power cycle.
2. What are the advantages of supercritical boilers over critical boilers?
3. How hydroelectric power plants are generally classified?
4. What are the functions of surge tank in Hydro power plant?
5. Why moderation is essential in nuclear power plant?
6. What do you mean breeding in nuclear power plant?
7. How the thermal efficiency of a gas turbine is improved?
8. Mention the various field of application of diesel power plant.
9. Draw the layout of OTEC power plant.
10. What is thermionic power generation?

PART – A (16 x 5 = 80 Marks)

11. Draw the general layout of a thermal power plant and explain its operation with various circuits.
12. a) Explain the types of arrangements of turbines in hydel power plant with sketch.  
(Or)  
b) Discuss about the methods of coal handling devices used in steam power plant.
13. a) With a sketch explain Boiling Water Reactor.  
(Or)  
b) Briefly discuss the methods of nuclear waste disposal.
14. a) With neat layout explain the operation of Diesel power plant.  
(Or)  
b) Discuss the open and closed cycle gas turbine operation with neat sketch.
15. a) Explain the operation geothermal energy power plant with neat sketch.  
(Or)  
b) Explain any one type of MHD power generation with neat sketch.