

Code: ME8T1

**IV B.Tech - II Semester – Regular Examinations – April 2016**

**POWER PLANT ENGINEERING  
(MECHANICAL ENGINEERING)**

Duration: 3 hours

Max. Marks: 70

Answer any FIVE questions. All questions carry equal marks

1. Explain the working of different circuits of a thermal power plant with a general layout. 14 M
  
2. a) Describe the working of Electrostatic precipitator dust collection in a Stream Power plant. 7 M  
  
b) Explain briefly different methods used to treat feed water. 7 M
  
3. Explain briefly the working of different systems of a diesel power plant with diagrams. 14 M
  
4. a) Explain the working of an open cycle Gas Turbine Plant. 9 M  
  
b) List the advantages of combined cycle power plant. 5 M
  
5. a) What do you understand by pumped storage plants? 5 M

- b) Describe the working of pumped storage power plant and mention their merits and demerits. 9 M
6. Explain the working of a fuel cell and list out its advantages over the other systems of power generation. 14 M
7. a) How nuclear reactors are classified? 5 M
- b) Describe the working of pressurized water reactor with neat sketch. 9 M
8. Explain the pollution caused due to power plant. How it can be controlled? 14 M