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B. E. Semester- V Mid- Semester Examination

Subject Name: Thermal Power Plant Engineering

Date: 30-08-2014 **Time: 08:30 a.m to 10:00 a.m.**
Branch: Mechanical **Max. Marks: 30**

Instructions:

1. **Attempt any 6 questions.**
2. **Make suitable assumption whenever necessary.**
3. **Figures to the right indicate full marks.**

Q.1 Briefly explain the factors to be considered for site selection of modern thermal power plant. (5)

Q.2 Draw & Explain ' Schmidt-hartmann boiler' briefly with neat sketch. (5)

Q.3 Describe with neat sketh the working of Regenerative and Recuperative types of air preheater. (5)

Q.4 Discuss the effect of variation of load factor and diversity of factor on the design of a power plant. (5)

Q.5 What is jet condenser? Explain low level Jet condenser (5)

Q.6 Write short on FBC. (5)

Q.7 Explain with neat sketch Evaporative condenser. (5)

Q.8 Manual peak load on 30 MW power station is 25 MW .The power station supplies load having max demand of 10 MW,8.5 MW ,5 MW and 4.5 MW . The annual load factor is 0.45 find (1) Average load (2) Energy supplied per year (3) Diversity factor (4) Demand factor. (5)

Q.9 Steam enters the condenser at 36 ° C. The condenser vacuum is 70 cm of mercury when the barometer reads 75.5 cm of Hg . Determine the vacuum efficiency. Estimate the mass of air present in the condenser per Kg of steam. (5)