Total No. of Questions :8] *[Total No. of Printed Pages :2*

Roll No .....

MMTP - 201

M.E./M.Tech., II Semester

Examination, December 2016

Thermal Power Plant Engineering

Time : Three Hours

Maximum Marks : 70

Note : i) Attempt any five questions.
ii) All questions carry equal marks.
iii) Draw neat diagrams wherever required.

1. a) What do you understand by super critical thermal power plants? In what aspects they are different than conventional power plant? Discuss.
   b) Name various curves that are necessary for the performance evaluation of the thermal power plant. Draw and discuss any one curve of your choice.

2. a) State the working principle of Fluidized bed combustion.
   b) State in brief about pulverised fuel firing burners.

3. a) How dust is handled in thermal power plant? Discuss its mechanism.
   b) Explain boiler feed water treatment and its process.

4. a) Discuss the principle of air cooled condensers and its function in thermal power plant.
   b) What is De-aerator? State its function in brief.

5. a) State the need and importance of plant instrumentation in thermal power plant.
   b) Discuss in brief about electro-mechanical transducers used in thermal power plant.

6. a) Briefly discuss pipe flexibility analysis.
   b) Define Insulation. Derive the formula for optimum insulation thickness.

7. a) Discuss starting, loading and normal operation checks for newly commissioned thermal power plant.
   b) Discuss safety regulations and aspects that must be considered in thermal power plant.

8. Write short note on following (any two) :
   a) Contract documents for thermal power plant
   b) Training of power plant personnel
   c) Seismic analysis

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