

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. E. Sem. - V - Examination – June- 2011

Subject code: 151906

Subject Name: Conventional Power Engineering

Date: 30/06/2011

Time: 10:30 am – 01:00 pm

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Explain in brief **07**
I. Advantages and disadvantages of thermal power plants
II. Advantages and disadvantages of steam turbine
- (b) Explain in brief **07**
I. Explain nuclear pollution and waste disposal
II. Factors affecting economic of generation and distribution of power
- Q.2** (a) Explain Thermal power plant Also state the factors affecting site selection of thermal power plant **07**
- (b) Discuss the advantages and disadvantages of steam **07**
- OR**
- (b) Explain in brief **07**
I. Condition maximum efficiency of impulse turbine
II. Principle and operation of steam turbine
- Q.3** (a) Discuss the working of a gas turbine power plant with the help of a schematic diagram. **07**
- (b) Discuss the merits and demerits of a gas turbine plant **07**
- OR**
- Q.3** (a) Explain components of a gas turbine power plant **07**
- (b) Merits and demerits of closed cycle turbine over open cycle turbine **07**
- Q.4** (a) What are the advantages and disadvantages of diesel power plant also explain application of diesel power plant. **07**
- (b) Explain the function of fuel supply system in diesel power plants **07**
- OR**
- Q.4** (a) What are the principal parts of a nuclear reactor? Explain in brief **07**
- (b) What do you understand by thermal shielding? **07**
- Q.5** (a) What are the advantages and limitation of hydro power plant over other power plant **07**
- (b) Draw the schematic lay out of hydro-electric power plant **07**
- OR**
- Q.5** (a) How are hydro- electric power plant classified. **07**
- (b) Explain in brief hydro electric power plant controls. **07**
