

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
BE SEM-VII Examination-Nov/Dec.-2011

Subject code: 170505

Date: 29/11/2011

Subject Name: Energy Technology

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) What are the conventional & non- conventional energy sources? Describe briefly. **07**
(b) Explain various solar energy storage system **07**

- Q.2** (a) Enlist various domestic and industrial applications of solar energy **07**
(b) What is solar collector? List various types of Focusing type Concentrator and Explain any one. **07**

OR

- (b) What is washing of coal? Describe washability curve in detail. **07**

- Q.3** (a) Explain advantages and disadvantages of geothermal energy. **07**
(b) Write a note on proximate and ultimate analysis of fuel **07**

OR

- Q.3** (a) What is Biomass? Classify the Biogas plant and Explain any one in detail? **07**
(b) Define calorific value, gross calorific value, net calorific value, caking & coking of coal. **07**

- Q.4** (a) Write a note onsite selection for wind energy farm. **07**
(b) Write in brief on any one nuclear reactor **07**

OR

- Q.4** (a) What is OTEC? Explain any one method of obtaining energy from tides? **07**
(b) Explain the basic components involved in wind energy conversion **07**

- Q.5** (a) Explain advantages and disadvantages of fuel cell **07**
(b) What is Fuel Cell? Describe Molten Carbonate Fuel Cell (MCFC) with neat and clean diagram. **07**

OR

- Q.5** (a) List the various methods of production of Hydrogen from different Sources. **07**
(b) Explain the principle involved in MHD power generation **07**
