

GUJARAT TECHNOLOGICAL UNIVERSITY
ME Semester –II Examination Dec. - 2011

Subject code: 1722104**Date: 19/12/2011****Subject Name: Energy Conservation & Management****Time: 02.30 pm – 05.00 pm****Total Marks: 70****Instructions:**

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

- Q.1** (a) Discuss present energy scenario in Gujarat. **07**
(b) Discuss advantages of renewable energy sources. **07**

- Q.2** (a) Explain fluidized bed combustion (F.B.C.) and discuss importance of air fuel ratio. **07**
(b) Discuss various methods of energy conservation. **07**

OR

- (b) What is energy management? How it helps in solving problems of energy crisis? **07**

- Q.3** (a) What are the steps involved in energy audit? Explain. **07**
(b) Explain with neat sketch Co-generation system. Discuss its advantages. **07**

OR

- Q.3** (a) Explain with neat sketch K.V.I.C. model Biogas plant. **07**
(b) Discuss Ocean Thermal Energy Conversion (O.T.E.C.) plant. **07**

- Q.4** (a) State and explain various efficiency improvement methods used in thermal power plant. **07**
(b) Explain Tidal power plant. **07**

OR

- Q.4** (a) Explain method to capture wind energy to get electricity. **07**
(b) Discuss computer control energy management. **07**

- Q.5** (a) Electricity saving technique by category of end use. **07**
(b) Explain demand management **07**

OR

- Q.5** (a) Explain compressed air energy storage (C.A.E.S.). **07**
(b) Explain life cycle costing. **07**
