Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

M. E. - SEMESTER – II • EXAMINATION – SUMMER • 2013

Subject code: 1722104 **Date: 07-06-2013**

Subject Name: Energy Conservation and Management

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)**	Discuss various principles of energy conservation.	**07**
	(b)	Explain general procedure for cooling load calculation.	**07**
Q.2	**(a)**	Explain how power factor improvement helps to save energy.	**07**
	(b)	Future power development trend in India ï Discuss.	**07**
		OR	
	(b)	Explain Green house concept.	**07**
Q.3	**(a)**	What is the importance and role of energy management?	**07**
	(b)	Layout general procedure in Energy Audit.	**07**
		OR	
Q.3	**(a)**	What are the advantages of co-generation power plant?	**07**
	(b)	With neat sketch explain working of ñCyclone Burnerò.	**07**
Q.4	**(a)**	With the help of neat sketch explain working of Fluidized Bed Combustion.	**07**
	(b)	What are the advantages of Diesel Generator set for power generation?	**07**
		OR	
Q.4	**(a)**	What are the advantages of Renewable energy?	**07**
Q.4	**(b)**	With help of neat sketch explain working of Floating Dom-KVIC Biogas plant.	**07**
Q.5	**(a)**	Explain payback period for energy conservation.	**07**
	(b)	What is the importance of Energy Audit?	**07**
		OR	
Q.5	**(a)**	Why energy storage is required? State the types of energy storage and explain any one.	**07**
	(b)	Explain working of Back pressure steam turbine.	**07**

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