Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–1st / 2nd (SPFU) EXAMINATION– WINTER 2015

Subject Code: TEE010 **Date:07/01/2016**

Subject Name: Renewable Energy

Time: 10:30am to 01:00pm **Total Marks: 70**

Instructions:

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

Q.1	**(a)**	Compare conventional energy sources with non conventional energy sources.	**07**
	(b)	Explain renewable energy sources. Write applications of solar energy.	**07**
Q.2	**(a)**	Discuss advantages and disadvantages of solar energy.	**07**
	(b)	Explain advantages and disadvantages of wind energy. Also write applications of wind energy.	**07**
Q.3	**(a)**	Explain wood gassifier with its advantages.	**07**
	(b)	Explain bio-conversion mechanism.	**07**
Q.4	**(a)**	Explain characteristics of wind generators.	**07**
	(b)	Discuss points to select proper site for wind mills. Write types of wind mills.	**07**
Q.5	**(a)**	Explain heating, cooling and drying in respect to solar energy application.	**07**
	(b)	Explain operating principle of solar photovoltaic system.	**07**
Q.6	**(a)**	Explain operating principle of microhydel.	**07**
	(b)	Explain the components of a microhydel power plant.	**07**
Q.7	**(a)**	Explain OTEC power plant.	**07**
	(b)	Explain tidal energy with its applications. Also write its advantages and disadvanatages.	**07**

****