Seat No.:	Enrolment No

GUJARAT TECHNOLOGICAL UNIVERSITY M. E. - SEMESTER - II • EXAMINATION - SUMMER • 2014

		M. E SEMESTER - II • EXAMINATION - SUMMER • 2014	
Sul	bject	code: 1723007 Date: 25-06-2014	
Sul	bject	Name: Energy Technology	
Tir	ne: 0	2:30 pm - 05:00 pm Total Marks: 70	
Inst	tructi	ons:	
	1.	Attempt all questions.	
		Make suitable assumptions wherever necessary.	
	3.	Figures to the right indicate full marks.	
Q.1	(a)	Describe with a neat sketch the working of wind energy conversion system (WECS) with main components.	07
	(b)	Discuss National energy strategies in detail.	07
Q.2	(a)	Explain analysis of coal & its calorific value.	07
	(b)	List the various parameters for selecting the site for wind power plant. List the advantage of wind energy over solar energy. OR	07
	(b)	Discuss the merits & demerits of Vertical axis wind mill over Horizontal axis wind mill.	07
Q.3	(a)	Explain liquid flat plate collector with an example.	07
	(b)	Define the following term:	07
		(i)Declination angle (ii) Hour angle (iii) Zenith angle (iv) Latitude angle (v) Solar constant (vi) Beam radiation (vii) Angle of incidence OR	
Q.3	(a)	Discuss Merits & Demerits of Concentrating collector over flat plate collector.	07
Q.S	(b)	Explain solar distillation system in detail.	07
Q.4	(a)	Explain updraft gasifiers with a neat sketch.	07
	(b)	Explain vapour dominated geothermal system with a neat sketch. OR	07
Q.4	(a)	Explain the different parameters affecting on the biogas generation.	07
	(b)	Discuss the utilization of geothermal energy.	07
Q.5	(a)	Discuss principle of tidal power generation & explain advantages of tidal power generation.	07
	(b)	Explain classification of Fuel cells in detail. OR	07
Q.5	(a)	Explain application of tidal energy also discuss problems in tidal energy	07
	(b)	Write a short note on Hydrogen-Oxygen Fuel cell.	07
