Seat N	lo.:	Enrolment No.	
	GUJARAT TECHNOLOGICAL UNIVERS		
		M.E –II st SEMESTER–EXAMINATION – JULY- 2012	
Subj	ect c	ode: 1723007 Date: 14/07/	/2012
Subj	ect N	Jame: Energy Technology	
Time	: 10:	30 am – 13:00 pm Total Marl	ks: 70
Instr	ucti	ons:	
1.	Atte	empt all questions.	
		ke suitable assumptions wherever necessary.	
3.	Figu	res to the right indicate full marks.	
Q.1	(a)	Discuss Various types of horizontal axis wind turbine generators.	07
	(b)	Discuss National energy strategies.	07
Q.2	(a)	Explain analysis of Coal and its calorific value.	07
	(b)	What is Solar Constant? Discuss beam and Diffuse Solar radiation in brief.	07
		OR	
	(b)	Write advantages of flat plate type solar collectors over concentrating collectors.	07
Q.3	(a)	Give classification of Gasifier and explain updraft gasifier with neat sketch.	07
	(b)	What is nuclear energy? Discuss about nuclear fission in brief. OR	07
Q.3	(a)	Explain various types of geothermal sources.	07
	(b)	Explain heat pump in chemical process industry.	07
Q.4	(a)	Write a short note on WECS.	07
	(b)	Discuss principle of tidal power generation and draw a neat sketch of typical single basin of tidal power plant.	07
		OR	
Q.4	(a)	What is the fuel cell? Discuss advantages and disadvantages of fuel cell.	07
Q.4	(b)	Write a short note on molten carbonate fuel cell.	07
Q.5	(a)	Discuss energy conservation in brief.	07
	(b)	Write a short note on Pyrolysis.	07
		OR	
Q.5	(a)	What is biomass? Discuss any ten major factors affecting generation of biogas.	07
	(b)	Write a short note on ion-exchange fuel cell.	07
