Seat No.:	Enrolment No.
Seat 110	Ellionnent No

GUJARAT TECHNOLOGICAL UNIVERSITY BE- IVth SEMESTER-EXAMINATION - MAY/JUNE- 2012

BE- IVth SEMESTER-EXAMINATION – MAY/JUNE- 2012 Subject code: 140904 Date: 31/05/2012

Subje	ect Na	me: Energy Systems		
Time: 10:30 am – 01:00 pm			Total Marks: 70	
Instr	uctio	ns:		
		npt all questions.		
		suitable assumptions wherever necessary.		
3.	Figur	es to the right indicate full marks.		
Q.1	(a)	Explain the function of following equipments for Steam station: (i) Air preheater (ii) Superheater (iii) Economis Cooling tower (v) Electrostatic Precipitator (vi) Pulverize Alternator.	ser (iv)	07
	(b)	Discuss choice of site for Hydro Electric Power station.		07
Q.2	(a)	Explain function of main components of a Nuclear Reactoneat sketch.	or with	07
	(b)	Discuss applications of Diesel Power station.		07
		OR		
	(b)	State advantages and disadvantages of Gas Turbine Power s	tation.	07
Q.3	(a)	Explain principle of Wind Energy System. Also list disadva of wind energy.	ntages	07
	(b)	Explain Grid connected Wind Energy Conversion System. OR		07
Q.3	(a)	Explain principle of Fuel cells. Also state its advantages.		07
	(b)	Explain Hydrogen storage systems.		07
Q.4	(a)	Explain liquid Flat Plate Solar Collector. Also explain Sol heater using it.	lar Air	07
	(b)	Explain Solar Distillation system. OR		07
Q.4	(a)	Explain medium temperature Solar Power Plant with neat sk	cetch.	07
	(b)	State types of Solar Dryers and explain any one solar drye neat sketch.	r with	07
Q.5	(a)	Explain coal handling plant in detail for Steam Power station	n.	07
	(b)	Explain floating drum type Biogas plant. List its meridemerits.	ts and	07
		OR		
Q.5	(a)	Explain Anderson cycle Ocean Thermal Energy Conv (OTEC) system. State advantages and disadvantages of OTE		07
	(b)	Explain Tidal power plant with diagram.		07
