Seat No.:	Enrolment No.
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GUJARAT TECHNOLOGICAL UNIVERSITY BE - SEMESTER-IV • EXAMINATION – WINTER 2013

DE - SEMESTER-IV - EXAMINATION - WINTER 2013

Subject Code: 140904 Subject Name: Energy System Time: 02:30 pm to 05:00 pm		Code: 140904 Date: 30-12-2013	
Instru			
	1.	Attempt all questions.	
		Make suitable assumptions wherever necessary.	
	3.	Figures to the right indicate full marks.	
Q.1	(a)	•	07
	(b)	How site for hydro electric plant is chosen?	07
Q.2	(a)	What are the main component and auxiliary component of gas turbine plants? Explain it.	07
	(b)	•	07
		(I) Super heater (II) Electrostatic Precipitator (III) Economizer (IV) Condenser (V) I.D. Fan (VI) F.D. Fan (VII) Exciter OR	
	(b)		07
Q.3	(a)	•	07
		Solar azimuth angle	
		Zenith angle	
		Declination angle	
		Hour angle.	
	a >	Angle of incidence.	~ =
	(b)	OR	07
Q.3	(a)		07
	a >	schematic diagram.	~ =
	(b)	List applications and limitations of wind energy system.	07
Q.4	(a)	List types of fuel cells. Explain any one in details.	07
	(b)		07
Q.4	(a)	Explain Solar drying system	07
	(b)	Which methods are used to control the fluctuation of power in wind turbine projects?	07
Q.5	(a)	Discuss the methods by which the biogas can be used in diesel engines. What are its advantages?	07
	(b)		07
Q.5	(a)		07
	(b)	Discuss site selection for steam power station.	07
