Seat No.: Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-IV • EXAMINATION – WINTER • 2014

Date: 02-01-2015

Subject Code: 140904

	Sub	oject Name: Energy System	
		ne: 02:30 pm - 05:00 pm Total Marks: 70 ructions:	
		 Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks. 	
Q.1	(a)	Explain the function of following equipment with respect to thermal power plant (1) Economizer (2) Air preheater (3) Electro static precipitator(4) Condense	07
	(b)	Discuss the essential factors to be considered for the site selection of Hydro electric power plant.	07
Q.2	(a)	Discuss the working of a gas turbine power plant with help of schematic diagram. Also state its advantages and disadvantages.	07
	(b)	Discuss the applications of Diesel power plant. OR	07
	(b)	Draw the neat sketch of a nuclear reactor and explain function of each part.	07
Q.3	(a)	Discuss the Grid connected wind energy conversion system with help of necessary diagram.	07
	(b)	What is solar collector? State their types and explain any one in detail. OR	07
Q.3	(a) (b)	Discuss the methods of site selection for locating the wind mill. Explain solar drying system.	07 07
Q.4	(a) (b)	Explain solar photovoltaic system and also explain its use in solar pumping. Classify fuel cell in different basis.	07 07
		OR	
Q.4	(a) (b)	State applications of hydrogen energy. State advantages of OTEC.	07 07
Q.5	(a) (b)	Explain Anderson cycle ocean thermal energy conversion system. Explain floating drum type bio gas plant.	07 07
		OR	
Q.5	(a) (b)	Explain double basing type tidal power plant. Write short note on biomass energy conversion.	07 07
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