Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER- IV EXAMINATION - SUMMER-2015

Subject Code: 140904 Subject Name: Energy Systems Time: 10.32am-01.00pm Instructions:		Code: 140904 Date: 08/06/20	Date: 08/06/2015 Total Marks: 70	
		0.32am-01.00pm Total Marks:		
		Attempt all questions.		
Q.1	(a) (b)	Explain Nuclear Power Station with neat sketch. Explain the function of following equipments for Steam Power station: (i) Air preheater (ii) Superheater (iii) Economiser (iv) Cooling tower (v) Electrostatic Precipitator (vi) Pulverizer (vii) Alternator.	07 07	
Q.2	(a) (b)	Explain the comparison between Steam, Hydro and Nuclear power station with reference to efficiency, maintenance, fuel cost, reliability and life. Write notes on "Pumped Storage Hydro Electric power plant" OR	07 07	
	(b)	What are the main component and auxiliary component of gas turbine plants? Explain it.	07	
Q.3	(a) (b)	List out the different types of solar collector. Explain the different types of flat plat collectors in brief. What is Solar Pond? Discuss the working of solar pond with neat sketch. OR	07 07	
Q.3	(a) (b)	State types of Solar Dryers and explain any one solar dryer with neat sketch. Explain solar photovoltaic system in detail	07 07	
Q.4	(a) (b)	Explain Wind Power Generation with schematic diagram. List applications and limitations of wind energy system. OR	07 07	
Q.4	(a) (b)	List types of fuel cells. Explain any one in details Discuss the applications of Diesel Power Plant.	07 07	
Q.5	(a)	Explain Anderson cycle Ocean Thermal Energy Conversion (OTEC) system. State advantages and disadvantages of OTEC.	07	
	(b)	Explain the sources and properties of Hydrogen as fuel & also give the application of Hydrogen energy.	07	
Q.5	(a) (b)	OR Explain various factors to be consider while designing biogas gasifire. Explain Tidal power plant with diagram.	07 07	
