Seat No.:	Enrolment No
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GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-IV • EXAMINATION - SUMMER-2015

Subject Code:140902 Subject Name: Electrical Power Time:10.30am-01.00pm Instructions: Date: 01/00 Total Mar			Date: 01/06/2015	
		70		
	1. 2. 3.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.		
Q.1	(a)	Draw the layout and explain how electrical power is generated in a Combined Cycle Power Plant	07	
	(b)	Give comparison between thermal power plant and hydro power plant.	07	
Q.2	(a) (b)	Write a short note on Nuclear eactors. Explain functions of various equipments used in thermal power station. OR	07 07	
	(b)	Explain advantages and disadvantages of hydro electric power station.	07	
Q.3	(a) (b)	Explain advantages and disadvantages of Gas power plant. Explain Substation Classification in detail. OR	07 07	
Q.3	(a) (b)	Explain Components of Wind Energy Conversion System. Explain SPV system components and their characteristics,	07 07	
Q.4	(a)	Define Following: a) maximum load, b)Peak load, c) load factor, d)Plant capacity factor, e) Plant use factor, f) Demand factor, g) diversity factor.	07	
	(b)	Explain Distributed energy systems and dispersed generation (DG)	07	
Q.4	(a)	OR Write a note on: Renewable energy – sources and features	07	
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0 =	(b)	Discuss various schemes of Electric Generation using Wind Energy.	07	
Q.5	(a) (b)	Explain (i) Solid earthing (ii) Peterson coil earthing. Explain Voltage Transformer and earthing Transformer	07 07	
		OR		
Q.5	(a)	Write note on "Green Building"	07	
	(b)	Write a note on "Present Status of PV in India"	07	
