Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY ME - SEMESTER IV (NEW) – EXAMINATION – SUMMER - 2017

Subject Code: 2740702 Date:03/05/2017

Subject Name: Power System Restructuring

Time:02:30PM-05:00PM Total Marks: 70

Instructions:

- 1. Attempt all questions.
- 2. Make suitable assumptions wherever necessary.
- 3. Figures to the right indicate full marks.

Q.1	(a)	Discuss reasons and objectives of deregulation of power systems.	07
	(b)	State and explain in brief various entities involved in restructured power system.	07
Q.2	(a)	State different market models and explain any two in brief.	07
	(b)	Explain total utility and marginal utility.	07
	(b)	OR Explain market demand curve and supply curve.	07
Q.3	(a)	What is the significance of congestion management? Classify different congestion management methods.	07
	(b)	Explain distinguishing features of electricity as a commodity.	07
		OR	
Q.3	(a)	Define congestion in transmission system. Discuss various limits imposed on transfer capability of transmission system.	07 07
	(b)	Explain in brief: ATC, TTC, TRM and CBM.	
Q.4	(a)	Explain market based congestion management methods in brief.	07
	(b)	Explain Power Transfer Distribution Factor (PTDF). OR	07
Q.4	(a)	Explain in brief the ancillary services required for routine operation of power system.	07
	(b)	Discuss comparision between various sources of reactive power.	07
Q.5	(a) (b)	Discuss various transmission pricing methods. What are the mandatory provisions required to be considered for ancillary services? Explain Black start capability service.	07 07
		OR	
Q.5	(a) (b)	Explain different loss allocation methods. Discuss four pillars of market design.	07 07
