Seat No.:	Enrolment No.
Seat No	Emoniem No

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VI • EXAMINATION – SUMMER • 2014

Su	bject	Code: 161702 Date: 21-05-2014	
Su	bject i	Name: Process Control	
Time: 10:30 am - 01:00 pm Total Marks:)	
Inst	truction	ns:	
	1.	Attempt all questions.	
	2.	Make suitable assumptions wherever necessary.	
	3.	Figures to the right indicate full marks.	
Q.1	(a)	Explain cascade control scheme with suitable example and neat sketch.	07
	(b)	Explain two alternatives of ratio control with respective application.	07
Q.2	(a)	Explain need of feed forward control with one example.	07
	(b)	Explain split range control scheme with neat sketch. Narrate its importance in process industry.	07
		OR	
	(b)	Explain proportional control scheme with features, limitations and its remedy.	07
		Provide neat sketch for support of the same.	
Q.3	(a)	Explain parallel structure of simple system in detail.	07
	(b)	Explain the benefits of control objective for process.	07
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Q.3	(a)	Explain modeling procedure and linearization for process dynamics in short.	07
	(b)	Give the application of selective and override control in process plant.	07
Q.4	(a)	Discuss control performance measures for common input changes.	07
	(b)	Explain floating point control with neat sketch.	07
Q.4	(a)	OR Give and explain the PID algorithm.	07
Ų.4	(a) (b)	Explain fine tuning of controller tuning constants.	07
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Q.5	(a)	Give stability analysis of linear and linearized system.	07
	(b)	Explain process lag and self regulation. OR	07
Q.5	(a)	Explain reactive curve method for tuning.	07
~.~	(b)	Explain PI controller mode in detail.	07
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