Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY BE SEMESTER III • EXAMINATION – SUMMER 2015

Sı	ıbjec	t Code: 130505	Date:29/05/2015	
Subject Name: Chemical Process Industries I Time: 02.30pm-05.00pm Instructions:		02.30pm-05.00pm	Total Marks: 70	
	1 2	 Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks. 		
Q.1	(a) (b)	Explain DCDA process for sulphuric acid manufacture. Explain electrolytic process for chlorine-caustic soda production. We electrolysis reactions taking place in diaphragm and mercury cells.	rite the 07	
Q.2	(a) (b)	Discuss major engineering problems in ammonia manufacture. Explain municipal wastewater treatment.	07 07	
		OR		
	(b)	Write short note on reverse osmosis.	07	
Q.3	(a) (b)	Explain urea manufacture from ammonium carbamate. Compare wet-process phosphoric acid and electric-furnace phosp process	horic acid 07	
Q.3	(a) (b)	OR Discuss major engineering problems in urea manufacture. Write short note on explosives	07 07	
Q.4	(a) (b)	List the additives in glass, specifying the role of each. Discuss manufacture of artificial graphite electrodes.	07 07	
		OR		
Q.4	(a) (b)	Explain manufacture of glass in detail. Explain flowchart for fermentation CO ₂ purification.	07 07	
Q.5	(a) (b)	Compare sulfate and sulphite pulping processes for cellulose fibres. Write short note on types of cement.	. 07	
		OR		
Q.5	(a)	List types of paper with uses. Explain paper manufacture with a nediagram.	eat flow 07	
	(h)	Discuss lime beneficiation process	07	
