Sea	t No.:	Enrolment No	_	
		GUJARAT TECHNOLOGICAL UNIVERSITY		
		BE - SEMESTER-III(OLD) • EXAMINATION – WINTER 2016		
Subject Code:130505  Subject Name: Chemical Process Industries-1  Time:10:30 AM to 01:00 PM  Instructions:  Date:09/01/  Total Mar				
Q.1	(a) (b)	Discuss scope of chemical industries in India. Give explanation on unit operations and unit processes.	07 07	
Q.2	(a) (b)	Ion exchange process for water softening. Short note Explosives used in industries. Explain  OR	07 07	
	<b>(b)</b>	Short note. Activated carbon.	07	
Q.3	(a) (b)	Explain manufacturing of urea with neat process flow diagram.  Discuss major engineering problem involves in the manufacturing of urea.  OR	07 07	
Q.3	(a) (b)	Describe manufacturing of H <sub>2</sub> SO <sub>4</sub> by DCDA process. Write down types of cement with characteristics. Define cement.	07 07	
Q.4	(a) (b)	Major engineering problems associated with the production of cement. Discuss Classify various methods for production of nitric acid. Discuss any one.  OR	07 07	
Q.4	(a)	Major engineering problems associated with the production of nitric acid. Discuss	07	
	<b>(b)</b>	Briefly explain Solvay's process for the manufacturing of sodium carbonate.	07	
Q.5	(a) (b)	Distinguish sulphate and sulphite process for paper and pulp manufacturing. State the uses of dry CO <sub>2</sub> with explanation for manufacturing of pure CO <sub>2</sub> .  OR	07 07	
Q.5	(a) (b)	With neat diagram explain manufacturing of chlorine & caustic.  Describe Linde's process of oxygen and nitrogen production.	07 07	

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