Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER– 1st / 2nd • EXAMINATION – SUMMER • 2014

Subject Code: 110001 **Date: 21-06-2014**

Subject Name: Chemistry

Time: 02:30 pm - 05:00 pm **Total Marks: 70**

Instructions:

1. **Attempt any five questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	(a)	Explain Zeolite process.	**7**
	(b)	Give preparation and use of Nylon-6 6	**4**
	(c)	Explain in brief Thermal Insulator	**3**
Q.2	(a)	What do you mean by air pollution? Write note on Green House Effect.	**7**
	(b)	What is hardness? Differentiate between temporary and permanent hardness. How can we remove temporary and permanent hardness?	**4**
	(c)	What do you mean by Chromatography? Give it principle. Give outline of classification of chromatography.	**3**
Q.3	(a)	Discuss Type of Polymerization Reaction with suitable examples.	**7**
	(b)	Explain briefly Non Ferrous Alloy.	**4**
	(c)	Write difference between scale and sludge.	**3**
Q.4	(a)	Explain briefly Galvanic Corrosion.	**7**
	(b)	Discuss type of fuel with suitable example.	**4**
	(c)	What is Refractory? Give classification of refractory with suitable examples.	**3**
Q.5	(a)	Discuss concept, advantages and uses of electro plating.	**7**
	(b)	Give application of Biotechnology in following fields. Agriculture, Medicine, Food quality	**4**
	(c)	Write note on fibres made from natural sources with suitable examples.	**3**
Q. 6	(a)	Discuss physical properties of metal. Write note in detail on heat treatment of steel.	**7**
	(b)	What are the characteristics of a good fuel? Give advantages of CNG over LPG.	**4**
	(c)	Give classification of Lubricants with suitable examples.	**3**
Q.7	(a)	Write note on Portland cement. Describe Wet process of manufacture of Portland cement with chemical reaction involved in it.	**7**
	(b)	Explain in brief Waterline corrosion.	**4**
	(c)	What are renewable and nonrenewable energy sources? Explain with suitable examples.	**3**

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