

GUJARAT TECHNOLOGICAL UNIVERSITY**BE- SEMESTER– 1st / 2nd • EXAMINATION – SUMMER 2018****Subject Code: 110001****Date: 18-05-2018****Subject Name: Chemistry****Time: 02:30 pm to 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) What is Hardness of Water? State its types and explain hot lime soda process for water treatment in detail. **07**
- (b) Describe with the help of a neat sketch of rotary kiln for manufacture of Portland Cement by wet process. **07**
- Q.2** (a) Define the word “Corrosion”. Explain the mechanism of Electrochemical Corrosion. **07**
- (b) Explain in detail about different spinning processes. **07**
- Q.3** (a) Define the word Fuel. Give its classification and distinguish between Proximate and Ultimate analysis of a coal. **07**
- (b) What are alloys? Give the characteristics and classification of alloys. **07**
- Q.4** (a) Explain the manufacturing process of Ethyl alcohol by Fermentation process. **07**
- (b) Give classification of refractory and write the properties of a refractory. **07**
- Q.5** (a) What is Chromatography? State its types and Explain in detail about paper chromatography. **07**
- (b) Differentiate between Renewable and Non-renewable sources of energy and discuss about the importance of Solar Energy. **07**
- Q.6** (a) Write in detail about Ozone layer depletion and acid rain. **07**
- (b) What do you mean by metallic coating? Explain different methods of cleaning of base metal before electroplating. **07**
- Q.7** (a) What do you mean by Lubricant? State its types and write the properties of a good lubricant. **07**
- (b) Distinguish between: **07**
- (i) Addition Polymerization and Condensation Polymerization
- (ii) Thermoplastic and Thermosetting Plastic