Seat No.:	Enrolment No.
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## **GUJARAT TECHNOLOGICAL UNIVERSITY**

		BE - SEMESTER- III EXAMINATION – SUMMER 2015	
Su	bject	t Code: 130102 Date:04/06/201	.5
Ti	-	t Name: Chemistry for Aeronautical Engineering 2.30pm-05.00pm Total Marks: 7 ons:	<b>'</b> 0
	1. 2. 3.		
Q.1	(a) (b)	Enlist the various methods for softening of water. Discuss any one in detail Differentiate chemical corrosion from electrochemical corrosion. Discuss the mechanism of electrochemical corrosion.	07 07
Q.2	(a) (b)	Discuss the physical properties of metals with its examples.  Differentiate between scale & sludge. How does the formation of sludge and scales affect boiler performance? Mention the methods to prevent scale formation	07 07
	<b>(b)</b>	OR Discuss comparisons between solid, liquid and gaseous fuel.	07
Q.3	(a)	What is vulcanization of rubber? Why natural rubber needs vulcanization? How is it carried out? Mention its advantages.	07
	<b>(b)</b>	Give classification of fibers.	07
Q.3	(a)	<b>OR</b> What do you mean by chemical conversion coating? Describe phosphate coating and chromate coating in detail.	07
	<b>(b)</b>	Differentiate between Thermoplastic and Thermosetting Plastic.	07
Q.4	(a) (b)	Explain the characteristics of good fibers.  Define lubricant and write a short note on "Mechanism of Lubrication".	07 07
Q.4	(a)	OR Describe the application of UV spectroscopy.	07
Ų. <del>4</del>	(a) (b)	Give comparison between chemical and electrochemical corrosion.	07
Q.5	(a)	Define the term paint, varnish and enamel. Mention the essential constituents of paint and their function.	07
	<b>(b)</b>	Explain in details chemical conversion coatings.	07
Q.5	(a)	OR Write a short note on energy crisis and its management.	07
Ų.J	(a) (b)	In which situation, the thermal insulators are used? Give the characteristics of an ideal thermal insulator.	07

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