Seat No.:				
		GUJARAT TECHNOLOGICAL UNIVERSITY		
	SEMESTER- 3 EXAMINATION – WINTER 2012			
Subject code: 130102 Date: 04/			1/2013	
Subj	Subject Name: Chemistry for Aeronautical Engineering			
Time:10:30 – 01:00 Total Ma			rks: 70	
Instr	ucti	ons:		
	1.	Attempt all questions.		
	2.	Make suitable assumptions wherever necessary.		
	3.	Figures to the right indicate full marks.		
Q.1	(a)	Enlist different heat treatment process. Discuss "Annealing and quenching" in details.	07	
	(b)	Enlist the various methods for softening of water. Discuss any one in detail.	07	
Q.2	(a)	Discuss comparisons between solid, liquid and gaseous fuel.	07	
	(b)		07	
	(b)		07	
Q.3	(a)	Give the properties and uses of common refractory bricks.	07	
	(b)	How polymers can be classified. Discuss any two types in detail. OR	07	
Q.3	(a)	Write a short note on artificial abrasives.	07	
	(b)	Write a note on synthetic fibers.	07	
Q.4	(a)	Define corrosion and describe factors influencing corrosion.	07	
	(b)	Give a brief comparison of Electroplating and Electroless plating. OR	07	
Q.4	(a)		07	
Q.4	(b)	Explain the characteristics of good fibers.	07	

(b) In which situation, the thermal insulators are used? Give the characteristics of

(a) What are the drawbacks of raw rubber? Give the advantages of vulcanization.

OR

Explain briefly "Solar Cell Energy Device"

(b) Define alloys. State the purposes of alloying steel.

an ideal thermal insulator.

Q.5

Q.5

07

07

07

07