Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

B. E. - SEMESTER -I • EXAMINATION - WINTER 2012

Subject code: 110001		e: 110001 Date: 30-01-2013	Date: 30-01-2013	
Subj	ect Nan	ne: Chemistry		
Time: 10.30 am – 01.00 pm		am – 01.00 pm Total Marks: 70		
Insti	ruction	s:		
		empt any five questions.		
		ke suitable assumptions wherever necessary.		
	3. Fig	ures to the right indicate full marks.		
Q.1	(a)	Describe Melt spinning and Wet spinning.	07	
۷.1	(b)	Write a note on Hydro power.	04	
	(c)	Give the short note on Global warming.	03	
		· ·		
Q.2	(a)	What is Corrosion?Write a note on chemical and Electro chemical	06	
		corrosion.		
	(b)	Discuss the manufacturing of Ethyl alcohol from molasses by fermentation	04	
	(a)	process. Mention the compounding materials used in plastic and Give their function.	04	
	(c)	Mention the compounding materials used in plastic and Give their function.	V4	
Q.3	(a)	Give the characteristics of Alloys. What is the purpose to make Alloys.	06	
	(b)	Explain TLC method of chromatography.	04	
	(c)	Calculate the Total hardness of sample of water containing Mg(HCO ₃) ₂ =	04	
		7.3 mg/l, $Ca(HCO_3)_2 = 16.2$ mg/l, $MgCl_2 = 9.5$ mg/l		
		, $CaSO_4$ =13.6 mg/l. (Atomic mass of Mg and Ca are 24 and 40).		
Q.4	(a)	Define paint and varnish. Give the characteristics and constituent of paint.	06	
Ų.T	(b)	Write a short note on hardness of water.	04	
	(c)	Define refractories and give the properties of refractories.	04	
Q.5	(a)	What is lubricants? Give the functions and ideal characteristics of	06	
		lubricants.	0.4	
	(b)	Give the preparation of Nylon-6,6 and Polyester.	04	
	(c)	Give the principle of Conductometric titration and Discuss the curve of weak acid with strong base.	04	
		weak actu with strong base.		
Q. 6	(a)	Give classification of lime and manufacturing process of lime.	06	
•	(b)	Explain Wind energy.	04	
	(c)	Why does natural rubber need vulcanization? Discuss the process for	04	
		vulcanization.		
0.7	(2)	Dispess about Defining of anyde oil with disquery of freetiened distillation	0.0	
Q.7	(a)	Disuses about Refining of crude oil with diagram of fractional distillation column.	06	
	(b)	Give the preparation and uses of Buna-S and Bakellite.	04	
	(0)	• •		
	(c)	Classification of fuels with example.	04	
