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

BE - SEMESTER-V • EXAMINATION - SUMMER • 2014

Subj	Subject Code: 152105 Date: 24-06-		2014	
Subj	ect I	Name: Industrial Corrosion and Its Prevention		
Time	: 1 0	0.30 am - 01.00 pm Total Marks	70	
Instru				
	2.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.		
Q.1	(a) (b)	•	07 07	
Q.2	(a) (b)		07 07	
	(b)	Define corrosion. Discuss the importance of corrosion behavior study for metals and alloys.	07	
Q.3	(a)	Explain mechanism of inter granular corrosion. Describe methods to prevent it in stainless steel.	07	
	(b)	1	07	
		OR		
Q.3	(a) (b)	· -	07 07	
Q.4	(a)	Derive Nernst equation for electrode potential. Discuss its application in corrosion study.	07	
	(b)	·	07	
Q.4	(a)	Discuss the significance of high temperature corrosion study. Write Piling-Bedworth ratio and its applications.	07	
	(b)	•	07	
Q.5	(a)	What is Metallic coating? Explain the difference between corrosion protection by noble coating and active coating using proper examples.	07	
	(b)		07	
Q.5	(a) (b)	Describe electroplating of copper. Explain process affecting factors. Compare cathodic protection method with anodic protection method to combat corrosion.	07 07	
