

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VIII (NEW) - EXAMINATION – SUMMER 2018

Subject Code: 2182112

Date: 02/05/2018

Subject Name: Industrial Corrosion, Testing, Prevention & Control (Department Elective -III)

Time: 10:30 AM to 01:00 PM

Total Marks: 70

Instructions:

- 1. Attempt all questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**

		MARKS
Q.1	(a) Define corrosion. List forms of corrosion..	03
	(b) Explain Inhibitors in brief.	04
	(c) According to economic aspects , Discuss the importance of corrosion study.	07
Q.2	(a) Enlist different methods of corrosion prevention.	03
	(b) Explain sacrificial anode method.	04
	(c) Explain Intergarnnular corrosion	07
OR		
Q.3	(c) Discuss stress corrosion cracking.	07
	(a) Discuss causes, mechanism of selective leaching.	03
	(b) Explain how material selection is helpful to combat corrosion in petrochemical industries.	04
(c) Discuss case study on failures in ship building industries and suggest remedies.	07	
OR		
Q.3	(a) Comment on failures due to embitterment in boiler tubes.	03
	(b) Discuss corrosive environment in Power industries.	04
	(c) Write case study on failures due to corrosion in automobile industries.	07
Q.4	(a) Discuss Corrosion resistance materials for marine industries.	03
	(b) Describe corrosive environment in marine industries.	04
	(c) With the help of suitable examples explain how the water quality affects corrosion in industries.	07
OR		
Q.4	(a) Which types of corrosion frequently occur in Automobile Industries?	03
	(b) Discuss corrosive environment in fertilizer industries.	04
	(c) Discuss case study on fertilizer industries.	07
Q.5	(a) List out different corrosion occur in petrochemical Industries	03
	(b) Write briefly about corrosion resistance materials for power industries.	04
	(c) Identify one corrosion related failures in petrochemical industries and suggest remedies.	07
OR		
Q.5	(a) List out different corrosion occur in marine Industries.	03
	(b) Write briefly about corrosion resistance materials for automobile industries	04
	(c) Identify corrosion related failures in a gas engine and suggest remedies.	07