

# Model Question Paper 1 with effect from 2022(CBCS Scheme)

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## 6<sup>th</sup> Semester B.E. Degree Examination Marine Corrosion and Prevention

TIME: 03 Hours

Max. Marks: 100

Note: 01. Answer any **FIVE** full questions, choosing at least **ONE** question from each **MODULE**.

Module -1			*Bloom's Taxonomy Level	COs	Marks
Q.01	a	Define corrosion. Explain the different types of corrosion	L1	CO1	10
	b	Write a note on EMF and Galvanic series.	L2	CO1	10
OR					
Q.02	a	Explain any five forms of corrosion.	L2	CO1	10
	b	. What is a concentration cell? Explain.	L2	CO1	10
<b>Module-2</b>					
Q. 03	a	Explain the following corrosion phenomena: i) Oxidation ii) Passivity	L2	CO2	10
	b	Explain the material degradation problems in marine environments and petrochemical industries	L2	CO2	100
OR					
Q.04	a	Explain the following corrosion phenomena: i) Stress corrosion cracking ii) Weld decay	L2	CO2	10
	b	Explain the degradation problems associated with ceramics.	L2	CO2	10
<b>Module-3</b>					
Q. 05	a	List and explain preventive controlling measures of MIC.	L3	CO3	10
	b	Write a short on MIC and biofilms.	L3	CO3	10
OR					
Q. 06	a	Explain the role of aerobic and anaerobic microorganisms in MIC	L3	CO3	10
	b	What is SRB corrosion? Explain its mechanisms.	L3	CO3	10

	c				
<b>Module-4</b>					
Q. 07	a	What is boiler corrosion? Explain the effect of corrosion while the boiler is not in service.	L3	CO4	10
	b	Explain any three methods to remove corrosion mill scale during plate preparation	L3	CO4	10
OR					
Q. 08	a	What are the reasons for corrosive wear of cylinder liners? Explain the remedies.	L3	CO4	10
	b	List the causes of point failures.	L3	CO4	10
<b>Module-5</b>					
Q. 09	a	Explain the PVD technique. List its advantages and disadvantages.	L3	CO4	10
	b	What is chemical corrosion and electrochemical corrosion?	L2	CO4	10
OR					
Q. 10	a	With a neat sketch, explain galvanization and list its uses.	L3	CO4	10
	b	Explain anodizing and phosphating.	L2	CO4	10

\*Bloom's Taxonomy Level: Indicate as L1, L2, L3, L4, etc. It is also desirable to indicate the COs and POs to be attained by every bit of questions.