

--	--	--	--	--	--	--	--	--	--

Sixth Semester B.E. Degree Examination, June/July 2024

Marine Environment Protection

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. What is Marine Ecosystem? Why Marine ecosystem is important? Explain. (10 Marks)
- b. Explain the five important impacts of Shipping. (10 Marks)

OR

- 2 a. What is Marine Environment? How can marine engineers contribute to protecting marine important? (10 Marks)
- b. Explain the different types of Ship discharge to the Sea. (10 Marks)

Module-2

- 3 a. Discuss the implementation of comprehensive safety protocols and precautions during bunkering process. (10 Marks)
- b. Analyze the critical components that should be included in a check list for the loading of oil cargo. (10 Marks)

OR

- 4 a. Discuss the critical steps involved in the oil tank cleaning process for ships. (10 Marks)
- b. Analyze the steps involved for discharging the oil cargo. (10 Marks)

Module-3

- 5 a. State and explain different types of MARPOL Annexes. (10 Marks)
- b. Explain briefly about Ballast Water Management Convention 2004. (10 Marks)

OR

- 6 a. Discuss the Oil Pollution Prevention Act 1990 in shipping. (10 Marks)
- b. Analyze the information issued by DG shipping for safety at Sea. (10 Marks)

Module-4

- 7 a. State and explain the other pollutant from ships. (10 Marks)
- b. Discuss the key responsibilities that ship operations and flag states of MARPOL Annex VI. (10 Marks)

OR

- 8 a. Describe why it is important for ship personal to adhere to the responsibilities outlined in MARPOL Annex I. (10 Marks)
- b. Explain the roles and responsibilities outlined in MARPOL Annex III. (10 Marks)

Module-5

- 9 a. Explain the different types of emissions to air from ships. (10 Marks)
- b. Discuss the critical responsibilities of ship operators regarding the management of hazardous substances. (10 Marks)

OR

- 10 a. Discuss the potential consequences of Ballast Water Management requirements. (10 Marks)
- b. Analyze the effectiveness and challenges associated with proactive measures required for controlling pollution from ships. (10 Marks)

* * * * *

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.