
Indian Maritime University
(A Central University, Govt of India)

Mar/Apr'26 SE
Programme Name: B Tech (ME)

Semester: 3

Subject Code: UG11T5306

Subject Name: MARINE ENVIRONMENT PROTECTION AND POLLUTION

Date: 26.03.2026

Max Marks: 70

Duration: 03 Hrs

Pass Marks: 35

General Instructions

- (i) All Sections (A, B & C) are to be attempted.
- (ii) Options, if any, are specified in respective section.

Section A

Ten MCQs/Fill in the Blanks of 01 Mark each – Choose the correct answer as applicable.

1. What is a Harmful Substance

- a) drugs b) alcohol c) paint d) any substance which can cause harm to marine resources and life at sea

2. What is discharge a) act of leaving service b) exit c) effluents containing such substances which are harmful at sea d) outlet

3. What is a ship as per MARPOL a) any floating object b) a boat c) a vessel operating in marine environment d) a fixed object

4. What is an incident as per MARPOL a) accident b) a news item c) event involving discharge into sea of harmful substance e) notifiable event

5. MARPOL Annexe I is related to a) plastic b) oil c) sewage d) ballast

6. MARPOL ANNEXE II is related to a) gas b) noxious liquid substances d) foam e) fire

7. MARPOL ANNEXE III is related to a) Noxious substances in packages b) liquids c) gases d) crystals

8. MARPOL ANNEXE IV is related to a) scrap b) garbage c) Oil d) pollution by sewage d) sewage

9. MARPOL ANNEXE V is related to a) garbage b) oil c) sewage d) ballast

10. MARPOL ANNEXE VI is related to a) land pollution b) sea c) oil d) atmospheric pollution

Section B

Five Questions of 02 Marks each

11. What are the categories into which Noxious liquid substances are divided into and with brief description of each type

12. What is the Procedures and Arrangements Manual ?

13. What are the special areas where stringent provisions exist for oil spills?

14. Briefly describe the documentation of carriage of harmful substances by sea as per MARPOL ANNEXE III

15. What are the special areas with reference disposal of garbage at sea. Why are such strict prohibitions against the disposal of plastics at sea?

Section C

Seven Questions of 10 Marks each of which any 05 questions to be answered.

16. a. What is the documentation required related to Annex II cargoes and explain how cargo record book is filled (5 Marks)
b. Explain SMPEP and VRP (5 Marks)

17. a. Explain the regulations for Air Pollution as per MARPOL Annex VI (5 Marks)
b. Describe in detail the provisions for issuance of the IAPP Certificate (5 Marks)

18. a. Explain the contents and purpose of OPA 90 (5 Marks)
b. Explain regulations for discharge of Garbage as per MARPOL Annex V (5 Marks)

19. a. Explain regulation regarding NOx emissions. What are some methods to limit and control NOx emissions (5 Marks)
b. Explain IMO International Anti-fouling Systems (AFS) Convention (5 Marks)

20. a. What are VOC. Explain VOC Management Plan in detail (5 Marks)
b. State the purpose of Sewage Retention System (Holding Tank) and how sewage from Sewage Holding Tank can be discharged at sea. (5 Marks)

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21. a. What is required to be recorded in the Oil Record Book Part I (5 Marks)
b. State the MARPOL requirements for pumping out engine room bilge.
(Machinery space of all ships) (5 Marks)

22. a. What is the OPRC HNS Protocol of 2000 in brief and what are its objectives
in brief (5 Marks)
b. Explain the purpose of ballast water and the BWM Convention. State "ballast
exchange" requirements (5 Marks)

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