

Indian Maritime University
(A Central University, Govt of India)
End Semester Examinations – December 2024
Programme Name: B Sc (NS)
Semester: V
Subject Code: UG21T5505
Subject Name: MARINE ENVIRONMENTAL PROTECTION

Date: 16.12.2024

Max Marks: 70

Duration: 03 Hrs

Pass Marks: 35

General Instructions

- (i) All Sections (A, B & C) are to be attempted.

Section A

Ten Fill in the Blanks of 01 Mark each

1. The Abbreviation IOPPC stands for _____.
2. Upon failure of Oil Filtering Equipment
 - a) It must be recorded in the ORB
 - b) It must be recorded in the official log book of the ship
 - c) It only needs to be repaired promptly and no entry is required to be made
 - d) Record must be maintained irrespective of the log book
3. Whenever any operations with respect to a noxious liquid substance take place on a vessel it must be recorded in -----
 - a) Cargo record book
 - b) Oil record book
 - c) Garbage record book
 - d) Deck log book
4. Every ship of _____ tons gross tonnage and above and every ship certified to carry 15 persons or more shall carry a Garbage Record Book.
5. Comminuted food waste can be disposed at what minimum distance from nearest land outside Special Area
 - a) 5 nm
 - b) 3 nm
 - c) 6 nm
 - d) 12 nm
6. The abbreviation ODS stands for
 - a) Ocean depleting substances

- b) Ozone depleting substances
- c) Ocean depending substances
- d) Ozone depending substances

7. The abbreviation NRC stands for _____.
8. _____ is defined as the forms of containment specified for harmful substances in the IMDG code.
9. Retention period of the Oil Record Book is _____.
10. The International Convention on the control of Harmful Anti-fouling systems on ships prohibits the use of _____ in anti-fouling paints used on ships from 1st January 2023.

Section B

Five Questions of 02 Marks each

- 11. What are the carriage requirements of ORB Part II ?
- 12. State the main four component of Annex VI
- 13. Define Harmful Substances as per Marpol Annex III.
- 14. List any 4 Special Areas for the purpose of Annex I
- 15. Define an ECA with appropriate examples.

Section C

Seven Questions of 10 Marks each of which any 05 questions to be answered. Questions which have two parts (a & b) carry equal marks for both parts (5 marks each).

- 16. a) What is the criteria for discharge of Oil residues from Machinery spaces of Gas Tankers within special areas?
b) Define Sewage as per Marpol Annex IV
- 17. (a) Briefly describe the categorization of Noxious Liquid substances as per MARPOL Annex II (5 Marks)
(b) Describe the provisions regarding the discharge of sewage into the sea (5 Marks)
- 18. State the NOx Tier 1, Tier 2 and Tier 3 requirements of Marpol Annex VI.
- 19. a) Explain the safety procedure to be followed during BWM for ship and crew (5 Marks)
b) Explain what is Garbage Management plan? (5 Marks)
- 20. Draw and label a Marine Sewage Treatment Plant and explain its working.
- 21. a) Briefly write about US Clean water act? (4 Marks)
b) What is Green Passport? (3 Marks)
c) State the authority of PSC in regard to MARPOL violation? (3 Marks)
- 22. a) Describe the harmful effects of Anti fouling paints which led to the International Convention on the control of Anti Fouling System on Ships.
b) Write short notes on National Response Center under OPA 90.