

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

Supplementary Examinations – September/October 2024

Programme Name: BSc (NS)

Semester: V

Subject Code: UG21T5505

Subject Name: MARINE ENVIRONMENTAL PROTECTION

Date: 08.10.2024

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

Answer all questions (10 x 1mark = 10 marks)

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

1. International Convention for the Prevention of Pollution from Ships (MARPOL) entered into force on _____.

2. Which of the following is oil as per MARPOL annexure 1

- (A) Heavy Fuel Oil
- (B) Crude Petroleum
- (C) Sludge generated in ship
- (D) All of them

3. Which of the following is not a requirement as per MARPOL

Regulations for the Control of Pollution by Noxious Liquid Substances in Bulk

- (A) Cargo record book
- (B) Oil Record book
- (C) P& A Manual
- (D) None of these

4. Harmful substances are those substances which are identified as marine pollutants in the _____ code

5. The validity of International Air Pollution Prevention Certificate shall not exceed a period of

(A) 3 years (B) 4 years (C) 5 years (D) 1 year

6. The abbreviation IEEC stands for _____.

7. Who sign the Declaration of Antifouling System ?

8. Glass & Crockery can be disposed in to sea after what distance from Nearest land

9. The BWM convention requires that vessels should conduct ballast water exchange at least _____ nautical miles from the nearest land.

10. Name the designated national authority in India for Oil Spill response in Indian water under National oil Spill Disaster Contingency Plan.

Section B

Answer all question (5 x 2marks = 10 marks)

11. Write the names of any four components mentioned in IOPP certificate?

12. Which are the surveys pertaining to carriage of noxious liquid substances in bulk in a ship?

13. Under what circumstances can harmful substances defined in Annex III be jettisoned?

14. What are the entries to be made in Garbage record book

15. Define an Emission Control Area (ECA) with examples.

Section C

Answer any 5 questions out of 7 (5 x 10 marks = 50 marks)

Questions which have two parts (a & b) carry 5 marks each

16. What is the criteria for discharge of Oil residues from Cargo spaces of Oil Tankers outside special areas?

17. What is the criteria for ship-board garbage discharged at sea outside special areas?

18. State the NOx Tier 1, Tier 2 and Tier 3 requirements of Annex VI.

19. a) What are the entries required in an ODS record book?

b) What are the contents of a SOPEP locker?

20. Draw and label a Marine Sewage Treatment Plant and explain its working.

21. a) Describe the various methods of ballast exchange (D1)

b) Draw and label a typical Ballast Water Treatment plant.

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 NPDES.

