

Indian Maritime University
(A Central University, Govt of India)
End Semester Examinations – June 2023
Programme Name: B Tech (ME)
Semester: IV
Subject Code: UG11T4404
Subject Name: Marine Pollution Prevention and Safety

Date: 02.06.2023

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 of 01 Mark each – Choose the correct answer as applicable.

1. Administration surveyors when checking foreign Flag ships in their ports for compliance of international regulations such as MARPOL / SOLAS is called

- (A) FSI (Flag State Inspection)
- (B) PSI (Port State Inspection)
- (C) Annual Survey
- (D) Intermediate Survey

2. Most harmful cargo (noxious liquid) carried in chemical tankers is under

- (A) Z Category
- (B) Y Category
- (C) X Category
- (D) Other Category

3. The..... is a designated Particular Sensitive Sea Area By IMO.

- a. Great Barrier Reef
- b. Baltic Sea
- c. Black Sea
- d. Red Sea

4. Oil Pollution Act 1990 is applicable to navigable waters of

- a. Europe
- b. USA
- c. United Kingdom
- d. None of the above

5. Validity of certificates issued by the Administration for compliance of MARPOL

- (A) 3 years (B) 5 years (C) 7 years (D) 10 years

6. Fouling of a ship's hull can be prevented by

- a. Bottom painting with anti-fouling paint
- b. Marine growth prevention system such as Impressed current system
- c. Ship's hull cleaning
- d. All of the above

7. Crude oil tanker slop tank discharge to be recorded in

- (A) Oil Record Book No. I (B) Oil Record Book No. II
- (C) Cargo Record Book (D) Ballast Water Record Book

8. As per ISM code maintenance program for the machinery is responsibility of

- a. Flag state b. Ship manager
- c. Machinery maker c. classification society

9. The main source of contamination due to harmful invasive species

- a. cargo b. Ballast water c. ship's accommodation d. None of the above

10.procedure enables an operator to effectively isolate dangerous machinery before commencing with their maintenance

- a. Lock out-tag out
- b. Lock in-tag in
- c. Look out-tag in
- d. All of the above

Section B

Five Questions of 02 Marks each

11. Define Special area as per Marpol Annex I & name two of them.

12. What is Maritime casualty as per CLC 1969?

13. What are the criteria needs to be fulfilled for the discharge of sewage from ships?

14. What is the Purpose of Shipboard Marine Pollution Emergency Plan (SMPEP)?

15. Define "nearest land" and food waste discharge criteria outside Special Area.

Section C

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

16. Explain in detail on Annex-VI of MARPOL. (10 marks)

17. (a) What is SOPEP? (2)

(b) Explain The guidelines for the development of Shipboard oil pollution Emergency Plan. (8)

18. (a) What is mandated under Ballast water management convention? (3)

(b) What are the methods of Ballast water exchange ? (3)

(c) What are the criteria to be followed for ballast water exchange (4)

19. How oil mixed with the bilge water is separated to avoid pollution? (2 marks)
Draw and explain oily water separator. (8 marks)

20. Sketch & describe shipboard incinerator for the purpose of burning sludge & solid waste. (10)

21. (a) Explain the concept of risk assessment before any maintenance work on-board? (4 marks)

(b) Define enclosed space with examples onboard. Explain "Enclosed Space Entry Permit". (c) Define hot work with examples onboard. Explain "Hot Work Permit" (3+3 marks)

22. (a) Describe pollution prevention measures for onboard bunkering activity. Which manual to be referred for bunkering check lists?

(b) Define hot work with examples onboard. Explain "Hot Work Permit" (5+5)



Shishir Srivastava <shishirs@tmi.tolani.edu>

B Tech (ME) - UG11T4404 - 02.06.2023 AN Paper - Clarification - reg.

2 messages

ESE IMU HQ <imuese@imu.ac.in>
Bcc: shishirs@tmi.tolani.edu

Fri, Jun 2, 2023 at 2:36 PM

Sir,

With reference to today's QP of UG11T4404:

Q No 21 (c)**For :** Define hot work with examples onboard. Explain "Hot Work Permit". (03 Marks)**Read:** Explain what we can do with the pump room bilge collection in oil tankers. Can it be pumped out at sea in a Special Area ? (03 Marks).

Thanks & Regards,

Cmde KD Joshi (IN) (Retd),
Controller of Examinations,
Indian Maritime University,
East Coast Road, Sholinganallur (PO),
Semmencherry, Chennai - 600119,
Phone: 044 - 2453 9023.



Shishir Srivastava <shishirs@tmi.tolani.edu>
To: ESE IMU HQ <imuese@imu.ac.in>

Fri, Jun 2, 2023 at 2:52 PM

Dear Sir,
Greetings,

Clarification Received

B Regards
S K Srivastava
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With reference to today's QP of UG11T4404:

Q No 21 (c)

For : Define hot work with examples onboard. Explain "Hot Work Permit".
(03 Marks)

Read: Explain what we can do with the pump room bilge collection in oil tankers. Can it be pumped out at sea in a Special Area ? (03 Marks).

