

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

**End Semester Examinations – December 2025**

**Programme Name: BSC Nautical Science**

**Semester: V**

**Subject Code: UG21T5504**

**Subject Name: SPECIALISED CARGO HANDLING & STOWAGE**

Date: 12.12.2025

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. "Separated from" in IMDG containers means separate by a greater distance, typically ----- meters to prevent interaction.  
a) 3m                      b) 9m                      c) 6 m                      d) 12m
2. What equipment will you use to measure the percentage by volume of hydrocarbon gas in cargo tanks on an oil tanker?  
(a) Oxygen analyser      (b) Explosimeter      (c) Tankscope      (d) Gascope
3. 1,20,000 to 2,00,000 DWT tanker is ----- category  
a) VLCC                      b) ULCC                      c) AFRA max                      d) Suez max
4. Which type of chemical tanker is designed for carrying the most hazardous cargoes?  
(a) Type 1      (b) Type 2      (c) Type 3      (d) Type X
5. Scrubber is part of the ----- system  
a) Crude oil washing      b) tank heating      c) Inert gas      d) tank venting
6. Why is maintaining proper ventilation important on Ro-Ro ships?  
(a) To reduce fuel consumption      (b) To keep the crew comfortable      (c) To prevent vehicle exhaust buildup      (d) To improve cargo stowage

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7. This category of chemicals presents a minor hazard to either marine resources or human health

- a) Category X      b) Category OS      c) Category Z      d) Category Y

8. What is the purpose of the IGC Code in the context of gas tankers?

- (a) To regulate the temperature of cargo tanks      (b) To specify the design requirements for gas containment systems      (c) To control the use of deepwell pumps      (d) To provide guidelines for tank cleaning procedures.

9. In RO-RO vessel, the Key car is the first car that is -----

- a) Loaded on the vessel      b) Closer to the Ramp      c) Closer to the accommodation      d) removed from the hold

10. This offshore vessel stands on its legs for operation

- a) DP vessel      b) Semi-submersible vessel      c) Jag up barge      d) offshore supply vessel

### **Section B**

Five Questions of 02 Marks each

11. What is the purpose of an anti-heeling tank in a container vessel?

12. What is the purpose of temperature recording in a reefer ship?

13. What is MARVS?

14. What is closed-circuit loading in a chemical tanker?

15. State any 4 types of Offshore vessel

### **Section C**

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

16. a) Write 5 parts of a container and their uses.

16. b) Explain Bay plan of container vessel.

17. Write short notes on Reefer hold preparation for loading and cargo care while in transit.

18. a) What is crude oil washing? (3 Marks)

Write down the hazards and benefits of Crude oil washing. (7 marks)

19. Write short notes on securing of heavy lift cargoes and stability in heavy lift ships

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20. Name five hazards associated with gas cargoes and briefly explain the hazards

21. Write short notes on Fully pressurized, Semi pressurized, Fully Refrigerated gas carriers

22. What is a bow door in an RO-RO ship? Briefly explain its opening, closing, and maintenance procedures.

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