

**Indian Maritime University**  
**(A Central University, Govt of India)**  
**End Semester Examinations – June 2025**  
**Programme Name: B Sc (NS)**  
**Semester: IV**  
**Subject Code: UG21T5403**  
**Subject Name: Cargo Handling & Stowage Paper - II**

Date: 04.06.2025

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. 10 X 1 = 10 MARKS

1. Cargo Hold Bilge pumping system fitted with \_\_\_\_\_ valves
  - a. Non-return
  - b. Needle
  - c. Butterfly
  - d. Globe
2. \_\_\_\_\_ cargoes are not permitted to load below deck.
  - a. Container
  - b. Oil
  - c. Dangerous
  - d. Bulk
3. \_\_\_\_\_ Register is used to record the testing of lifting appliances and cargo handling gear.
  - a. Crane
  - b. Chain
  - c. Derrick
  - d. Ring
4. An angle of Repose of \_\_\_\_\_ is taken as being the dividing line for bulk cargoes of lesser or greater shifting hazard.
  - a. 35°
  - b. 15°
  - c. 25°
  - d. 10°

5. Concentrates or other cargoes which may liquefy shall only be accepted for loading when the actual moisture content of the cargo is less than its \_\_\_\_\_.

- a) transportable moisture limit
- b) flow moisture point
- c) calculated moisture content
- d) moisture threshold

6. \_\_\_\_\_ refers to the process of spreading and levelling bulk cargo in a ship's hold to ensure safe and efficient stowage.

- a) Listing
- b) Strapping
- c) Trimming
- d) Saucering

7. Prior to shipment of DRI, this cargo shall be aged for at least 72 hours, or treated with an \_\_\_\_\_.

- a) air activation technique
- b) air passivation technique
- c) air blasting technique
- d) air ventilation technique

8. High density cargoes comparatively occupy \_\_\_\_\_ volume in the hold.

- a) less
- b) more
- c) flows and occupies entire volume
- d) none of the above

9. Concentrate cargo shall be trimmed to ensure the height difference between peaks and troughs does not exceed \_\_\_\_\_.

- a) 7 % of ship's breadth
- b) 5% of ship's breadth.
- c) 2.5% of ship's breadth.
- d) 5% of the total height of the cargo.

10. If the \_\_\_\_\_ is damaged, or excessively corroded, effective sealing of the hatch will not be possible.

- a) tank top
- b) bulkhead
- c) compression bar
- d) manhole

## **Section B**

Five Questions of 02 Marks each (2 X 5 = 10 Marks)

11. Explain why holds need to be inspected before loading cargo.
12. List the types of cargo that can be stowed on deck (any 4).
13. List any Four types of Dunnage.
14. Explain Trimmed and Untrimmed Cargo.
15. State the purpose of Ship Shore Safety Checklist.

## **Section C**

Attempt any five out of Seven Questions of 10 Marks each. (10x5 = 50 Marks)

- 16.a. Explain any Five Hazards of storing cargoes on Deck. (5 marks)
- 16.b. State the precautions to be taken to protect deck machinery and accommodation from dust when loading cargoes like cement. (5 marks)
- 17.a. Classify the Bulk Cargoes as per IMSBC Code. (5 Marks)
- 17.b. List the hazards associated with carriage of coal cargo and precautions taken for the same. (5 marks)
18. Describe the duties and powers of the Dock safety inspector. (10 Marks)
- 19.a. Describe how would you Prepare the Cargo Hold for carriage of Grain cargo? (5 Marks)
- 19.b. Explain saucering and bundling with respect to grain cargo. (5 Marks)
- 20.a. State the actions to be taken when encountering heavy weather with deck cargo. (5 Marks)
- 20.b. Classify the following Five different types of Bill of Lading:
  - i. Straight B/L
  - ii. Order B/L
  - iii. Bearer B/L
  - iv. Clean B/L
  - v. Claused B/L(5 Marks)
- 21.a. State the precautions taken for stowage and securing of timber deck cargo. (4 Marks)
- 21.b. List the various classes of dangerous cargo as per IMDG code. (6 Marks)

- 22.a. Write a short note on the term "Mate's Receipt". (5 Marks)
- 22.b. Explain what you understand by the term "Note of protest". (5 Marks)

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