

ACADEMIC YEAR 2023 - 2024

Program	Year	Semester	Paper
DO	2023-2024	2	5
MODULE NAME:	Cargo Handling and Stowage I		
MODULE CODE:	DSEAMII	EXAM DATE:	25.03.2024
TEACHER'S NAME:	Arife Tugsan Isicak Colak	DURATION:	1.5 hrs.

Questions to be answered on: ü Space provided on the question paper	Allowed requirements: Pen, Pencil & Calculator	Number of pages (Incl. cover page):
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Points of attention:

- For each question, the maximum earned points are mentioned between brackets at the end of each question.
- Write very clearly! Answers that are not readable are not marked and don't get points!
- Make sure your answers are written to the point.
- All answers should be written **in English**.
- Write all the answers in **blue or black pen only**.
- Use the **pencil** only for **diagrams & graphs**.
- Show all the calculation steps in the given space.
- When finished submit the question paper, together with the answer scripts and the signed cover page to the invigilator.
- Any cheating/copying may result in an instant failing of the examination.

FINAL MARKS	
STUDENT NAME:	40
STUDENT ID:	10

Number of answer scripts:.....

Invigilator:.....

Student's signature:

Time of receipt:.....

QUESTIONS

1. Write the Risks of Reefer Containers. Which precautions should have been taken for safe carriage of reefer containers? (2+2)

2. Explain the Cargo Securing Manual, what types of information are provided from Cargo Securing Manual? Who is responsible for Cargo Securing Manual(2+2+1)

3. Why watertightness (waterproof) and weathertightness (weatherproof) are important for hatch covers for ship's seaworthiness? What are the tests for cargo hatch covers for water tightness and weather tightness? Why ultrasound test method has highest advantages? (Compare with other test methods). (1+3+1).

4. Explain the aim and working principle of Anti heeling tanks for Roro Ships? (4)

5. Explain the types of cargo for dry bulk carriers and give examples for these bulk cargoes? (6)

6. Amount loaded on board 812 units 40 ft. container and 264 units 20 ft. container. Calculate the grand total amount as TEU. (2)

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7. Containerization Glossary Questions

Explain shortly: (2+2+2)

- Container Ship Types according to their service range

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- **Intermodal Transportation:**

■ 11

- Transhipment

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8. When preparing cargo loading plans, it is important that the ship should be loaded as close as possible to its maximum deadweight or capacity, but it is equally important to consider the implications of loading any high density cargo. In the early stages of planning, it is essential that not only should the physical dimensions of the cargo be established but also the *maximum permissible weight* which can be loaded into any compartment. The **maximum limits are expressed in tonnes per square metre** and are included in the ship's technical manuals and capacity plans. (Ref: UK P&I Club- Preparing cargo plans –structural limitations, 2006)

Regarding the information above, how we distribute the cargo as per Max. Permissible Load / Max. Stackload, give examples for the following cases:

1. While we are doing distribution of containers among cargo hold, hatchcover and deck. (4)
2. While we are doing distribution of roro cargoes among the decks (4)

Ref: UK P&I Club- Carefully to Carry, Preparing cargo plans—structural limitations, Thomas Miller Ltd., 2006, UK.

