ACADEMIC YEAR 2023 - 2024

Program	Year	Semester	Paper
DO	2023-2024	2	6

MODULE NAME:	**Cargo Handling and Stowage I**		
MODULE CODE:	**DSEAMII**	**EXAM DATE:**	**19.05.2024**
TEACHER'S NAME:	**Arife Tugsan Isiacik Colak**	**DURATION:**	**2 hrs.**

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

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.....are temperature regulated shipping containers that always have a controlled temperature. They are exclusively used for shipment of perishable substances like fruits and vegetables over long distances. (2)

2..... specifies arrangements and cargo securing devices provided on board the ship for the correct application to , and the securing of cargo units , containers and vehicles and other entities , based on transverse , longitudinal and vertical forces which may arise during adverse weather and sea conditions. (2)

3.Write the names of watertight tests for hatchcovers:
(Total: 1.5 mark, each is 0.5 mark)
a.
b.
c.

4.....has increased the efficiency of moving traditional break-bulk cargoes significantly, reducing shipping time by 84% and costs by 35%. (1)

a. Dry bulk carrier
b. Containerization
c. TEU
d. Chemical Tanker
e. None of the above

5. The maximum stack weight have to be kept for containers, otherwise: (1)

a. Overstressed hatch cover construction
b. Overstressed stowage and securing elements
c. Overstressed containers
d. Loss of containers
e. All above

6. For what purpose do we use inert gas on board oil carriers? (1)

a. We use inert gas to held pressure in the cargo tanks when we are discharging.
b. We use inert gas to replace the oxygen in the cargo tanks to maintain a neutral atmosphere.
c. We use inert gas to clean cargo lines after discharging.
d. We use inert gas for tank stripping when discharging.

7. What does VLCC means? (1)

a. Very large crude carrier.
b. Very large combination carrier.
c. Very large common carrier.
d. Very large crude combination carrier.

8. What is the common expression for all chemical compounds that includes carbon and hydrogen? (1)

a. Alkanes.
b. Hydrocarbons.
c. Alkenes.
d. Arenes.

9. Which oxygen content shall we measure before entering a tank or space after venting? (1)
   a. The oxygen content shall be measured to 19 % by volume.
   b. The oxygen content shall be measured to 21 % by volume.
   c. The oxygen content shall be measured to 10,8 % by volume.
   d. We don't need to measure the oxygen content.

10. You are discovering a small leak of oil at the manifold during discharging. What is your first action? (1)
   a. Try to stop the leak.
   b. Call immediately the person in charge.
   c. Call the terminal.
   d. Do not bother.

11. What is the purpose of the deck water seal? (1)
   a. To adjust the inert gas flow.
   b. To supervise the inert gas pressure.
   c. To prevent combustion gases to flow back and enter the burner.
   d. To wash the inert gas a second time.

12. To supervise the pressure conditions in the cargo tanks, a special device is fitted for this purpose. What is it called? (1)
   a. Supervising valve.
   b. Negative/positive pressure valve.
   c. Tank atmosphere control valve.
   d. Pressure/vacuum valve.

13. Which pair of devices are fitted on deck to prevent inert gas or cargo vapours from flowing back into the engine room? (1)
   a. The non-return valve, the deck seal.
   b. The bulkhead valve, the non-return valve.
   c. The spectacle flange, the Bernoulli tube.
   d. The bulkhead valve, the deck seal.

14. The process of removing the last remaining liquid content from a cargo tank is called (1)
   a. vacuuming
   b. cleaning
   c. dredging
   d. stripping

15. When oil temperature rises, the volume _____(1)
   a. increases
   b. varies
   c. reduces
   d. remains the same

16. Write the hold cleaning types in bulk carriers in correct order.
(Total: 2.5 mark , each 0.5 mark)

1.
2.
3
4.
5.

17. What are the advantages of double hull for tanker ships? Draw longitudinal bulkhead, transverse bulkhead, DBT and side tanks for oil tankers. (2+2)

18. Explain the principles of tank radar monitoring system, in which condition these system can give failure? (3)

19. Why is Crude Oil Washing System used after discharging operation? Explain. (3)

20. Assume that your precious cargo was dirty cargo (coal) and your new cargo is grain cargo ie: wheat, or barley. You should apply to your cargo hold 'grain cleaning' standard. What are the standards of grain cleaning? Explain. (5)

21. Discuss the concept of entry closed space entry. You, as a Chief Officer, give a task to the 3rd Officer to enter the Ballast Water Tank for inspection. Before entering the task and during the inspection of a tank which preparation will be carried out and which precaution should be taken. Explain the entry enclose space procedures step by step. (5)

Q #	MLO Addressed	Complexity Level	Mark	Remark
1-16	**MLO 1,2&4**	Application/ Analyse	**20**	
17	**MLO 1,2 &3**	Application / Analysing	**4**	
18	**MLO 1&3**	Application/Analysing	**3**	
19	**MLO 1&3,4**	Application	**3**	
20	**MLO 1,2 &4**	Application /Analysing	**5**	
21	**MLO 1&3**	Application	**5**	