

Indian Maritime University
(A Central University, Govt of India)
End Semester Examinations – June 2025
Programme Name: DNS
Semester: II
Subject Code: UD11T6205
Subject Name: Cargo Work II

Date: 05.06.2025

Duration: 03 Hrs

Max Marks: 70

Pass Marks: 35

General Instructions

- (i) All Questions are to be attempted.

Section A

**(Answer all questions. Ten MCQs/Fill in the blanks of 01 Mark each –
Choose the correct answer as applicable)**

1. Purging of tanks means increasing its O₂ level above 8%. (T/F)
2. What is the purpose of a Pressure-Vacuum (PV) valve on a tanker?
A) To prevent overflow during loading
B) To control temperature inside the cargo tank
C) To regulate pressure changes inside the tank
D) To allow continuous cargo flow
3. How is temperature correction applied to cargo density?
A) By using the ASTM-IP tables
B) By assuming a constant density
C) By multiplying the volume by a fixed factor
D) By using seawater temperature instead of cargo temperature
4. A loading rate of _____ is generally considered safe for loading oil cargo into inerted tanks.
5. Which type of tank coating is most suitable for aggressive chemical cargoes?
A) Epoxy
B) Zinc silicate
C) Bitumen-based coatings
D) Stainless steel
6. Chemical Tanker Ship Type 1 has no restrictions on amount of cargo they can carry. (T/F)
7. What document certifies that a chemical tanker complies with the IBC Code?
A) Cargo Declaration Form
B) International Oil Pollution Prevention Certificate
C) Certificate of Fitness
D) Safety Management Certificate
8. BLEVE is an acronym for _____.

9. What is the function of a re-liquefaction plant on an LNG carrier?

- A) Converts LNG to LPG
- B) Re-liquefies Boil-Off Gas (BOG)
- C) Converts LNG to compressed natural gas (CNG)
- D) Increases the cargo temperature

10. LNG Carriers maintain cargo temperatures at _____ C.

Section B

(Answer all the questions. Five Questions of 02 Marks each)

- 11. What is the Oil Tanker High Level & Over Fill Alarms limits?
- 12. Explain what is ISGOTT.
- 13. What are cofferdams and their importance on oil tankers?
- 14. What is the function of a nitrogen generator on a chemical tanker?
- 15. Classify LNG carriers based on the Pressurisation & Temperature system.

Section C

(All questions are compulsory)

- 16. a) Draw the Flammability Diagram with the flammable range (LEL/LFL) of Hydrocarbon & Oxygen? **(5 marks)**
b) Explain with diagram function of Scrubber Tower in the Inert Gas System used on Tankers? **(5 marks)**
- 17. Describe the procedures and safety measures involved in taking over a cargo watch on an oil tanker. **(10 marks)**
- 18. Discuss the hazards of tank cleaning operations on chemical tankers and the safety precautions to be followed. **(10 marks)**
- 19. a) Explain CHRIS code for Chemical Tankers. **(5 marks)**
b) Explain with diagram the principle and working of Eductor Pump. **(5 marks)**
- 20. Explain the hazards associated with gas cargoes and the control measures adopted to ensure safety. **(10 marks)**