

# CBCS SCHEME

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18MR641

## Sixth Semester B.E. Degree Examination, Dec.2023/Jan.2024 Advanced Marine Technology

Time: 3 hrs.

Max. Marks: 100

**Note: Answer any FIVE full questions, choosing ONE full question from each module.**

### Module-1

- 1 a. Explain the basic concepts of Single hull and Double hull tankers. (10 Marks)  
b. Explain with a neat sketch, any one type of piping arrangement system in oil tankers. (10 Marks)

OR

- 2 a. Explain the working of inert gas system in oil tank with a neat labeled diagram. (15 Marks)  
b. List the various alarms incorporated in the Inert gas plant (05 Marks)

### Module-2

- 3 a. Describe fully pressurized and fully refrigerated ships. (10 Marks)  
b. What is an E – motor room? Explain its layout with the help of a neat sketch. (10 Marks)

OR

- 4 a. What are the functions of reliquification plant? (06 Marks)  
b. Explain with the help of a sketch, cascade direct cycle reliquification plant used for fully refrigerated cargoes. (10 Marks)  
c. What is a Cargo Vaporizer? Why is it needed? (04 Marks)

### Module-3

- 5 a. What is Cow? What are its advantages and disadvantages? (10 Marks)  
b. Why is ESD (Emergency Shut Down) system fitted in gas carriers? When will the ESD be activated? Give examples. (10 Marks)

OR

- 6 a. What is Static Electricity in tankers? Explain. (10 Marks)  
b. Explain "LOT". (06 Marks)  
c. Write a note on Ballast tank protection. (04 Marks)

### Module-4

- 7 a. Write the safe handling practices of Noxious Chemical cargo during loading / unloading. (15 Marks)  
b. Write any five characteristics of Chemical tankers. (05 Marks)

OR

- 8 a. What is IMDG code? Explain in detail about classification of dangerous goods. (14 Marks)  
b. Write a note on Tank Washing machine. (06 Marks)

### Module-5

- 9 a. What is a Combination bulk carrier? Explain the two types with the help of a detailed sketch. (15 Marks)  
b. Explain Gearless bulk carrier. (05 Marks)

OR

- 10 a. Draw the midship section of a double hull bulk carrier and name the parts. (10 Marks)  
b. Explain about Ro – Ro ships. (10 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.