

CBCS SCHEME

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18MR641

Sixth Semester B.E. Degree Examination, Jan./Feb. 2023 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 briefly the origin of double hull ships. (06 Marks)
b. With a neat sketch, describe the working of a wet bottom scrubber. (08 Marks)
c. What are Marpol and Pre-Marpol Tankers? (06 Marks)

OR

- 2 a. With a neat sketch, explain submerged motor pump used in oil tanker. (10 Marks)
b. Write note on following non-return devices used in inert gas system:
(i) Vent line
(ii) Deck seal
(iii) Mechanical non-return valve (10 Marks)

Module-2

- 3 a. What are the types of Cargo Containment System? Explain any one. (10 Marks)
b. Explain the following with neat sketches:
(i) E-Motor Room
(ii) Cargo Heater (10 Marks)

OR

- 4 a. What are the different types of gas carriers? Explain any two. (10 Marks)
b. Explain the two working cycles of reliquification plant. (10 Marks)

Module-3

- 5 a. Explain Cargo Emergency Shut Down (ESD) system for liquefied gas carriers. (08 Marks)
b. Explain Load on Top system. (06 Marks)
c. Explain about ballast tank protection. (06 Marks)

OR

- 6 a. What is oil record book? What are the entries to be made in oil record book I and II? Explain. (10 Marks)
b. What is Crude Oil Washing? What are the advantages and disadvantages? Explain. (10 Marks)

Module-4

- 7 a. What is IMDG code? Explain in detail about nine classification of dangerous goods. (10 Marks)
b. Explain the general procedure to fight fire on tanker ships. (10 Marks)

OR

- 8 a. Explain in detail about Tank Washing Machines. (12 Marks)
b. What are the precautions to be taken while loading and unloading noxious chemical cargo? Explain. (08 Marks)

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.

Module-5

- 9 a. What are bulk carriers? Explain the following types of bulk carriers:
- (i) Combined
 - (ii) Gearless
 - (iii) Self Dischargers
- b. What are open Hatch Bulk Carrier? Explain.

(12 Marks)

(08 Marks)

OR

- 10 a. Explain the following types of container ships:

- (i) Panamax
- (ii) Suezmax
- (iii) Post-Panamax
- (iv) Post-Suezmax
- (v) Post-Malacamax

(10 Marks)

- b. Briefly explain about history, advantages and variations of a RO-RO ship.

(10 Marks)
