

CBCS SCHEME

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21MR54

Fifth Semester B.E./B.Tech. Degree Examination, Dec.2024/Jan.2025

Ship Structure and Construction

Time: 3 hrs.

Max. Marks: 100

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

Module-1

- 1 a. Define the following terms with a neat sketch:
i) Freeboard ii) Depth extreme iii) Bilge radius iv) Rise of floor
v) Camber vi) Tumble home (10 Marks)
- b. Explain the following :
i) Displacement ii) Light Weight iii) Dead Weight iv) Draft v) Trim (10 Marks)

OR

- 2 a. Explain in detail with a neat sketch :
i) Sagging ii) Hogging iii) Racking (12 Marks)
- b. Explain what is pounding and panting in detail. (08 Marks)

Module-2

- 3 a. Explain welded solid floor with neat sketch. (10 Marks)
- b. Explain panting stringers, vertical stiffeners with a neat sketch of the collision bulkhead porch (Traverse view). (10 Marks)

OR

- 4 a. Explain the description in detail of the Duct keel with a neat sketch. (10 Marks)
- b. Explain Anchor and cable arrangements with the help of a neat sketch. (10 Marks)

Module-3

- 5 a. What is deck plating? Explain briefly. (10 Marks)
- b. Explain Deep tank, Deep tank hatch. (10 Marks)

OR

- 6 a. Explain briefly the arrangement of plating and stiffeners water tight bulk heads. (10 Marks)
- b. Explain corrugated bulkheads in oil tankers. (10 Marks)

Module-4

- 7 a. Explain load line marking on a ship with a neat sketch. (10 Marks)
- b. What is gross tonnage? Explain what are the spaces required to calculate registered tonnage. (10 Marks)

OR

- 8 a. What is the sea trail for ships? Explain in detail. (10 Marks)
- b. What is role of a surveyor in construction of the ship? (10 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. Explain constructional details of oil tankers vessel, in detail. (10 Marks)
b. Explain the constructional details of a gas carrier. (10 Marks)

OR

- 10 a. Explain corrosion control and antifouling system of the ship. (10 Marks)
b. What is surface preparation? Explain the method of preparation for painting of hull. (10 Marks)

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