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Fifth Semester B.E. Degree Examination, Dec.2023/Jan.2024
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. Explain the following ship's terms and abbreviations: (10 Marks)
 i) L.B.P. ii) L.O.A. iii) B. Ext. iv) Freeboard v) Dead weight.
 b. Explain in brief about the two basic types of test carried out on welded joints. (10 Marks)

OR

- 2 a. Explain about metallic arc welding in detail. (10 Marks)
 b. Explain about longitudinal bending and transverse bending in detail. (10 Marks)

Module-2

- 3 a. With the help of neat sketches, explain in detail about side framing. (10 Marks)
 b. Explain the construction of Bulbous bow with the help of suitable diagrams in detail. (10 Marks)

OR

- 4 a. Explain the construction of spade rudder in detail. (10 Marks)
 b. Draw and explain in detail about solid floor (riveted) and welded types of bottom framing. (10 Marks)

Module-3

- 5 a. What is BULWARK? Explain it in detail. (10 Marks)
 b. Explain in detail about CORRUGATED BULKHEAD. (10 Marks)

OR

- 6 a. Explain in detail about welded watertight bulkhead with the help of neat sketch. (10 Marks)
 b. With the help of neat sketches, explain in detail about i) Flanged Girder ii) Built Girder (10 Marks)
 iii) Welded Girder.

Module-4

- 7 a. Draw and explain in detail about plimsol/load line mark. (10 Marks)
 b. Sketch and explain in detail about layout of a shipyard. (10 Marks)

OR

- 8 a. Explain in brief about role of surveyors in construction of ship. (10 Marks)
 b. What is meant by Net/Register Tonnage? Explain the various rules and regulations of Tonnage in detail. (10 Marks)

Module-5

- 9 a. Explain in detail about the followings constructions of gas tankers. (15 Marks)
 i) Cylindrical tank system
 ii) Spherical tank system
 iii) Prismatic tank system.
 b. What do you understand from the term "BOIL OFF"? Explain it in short. (05 Marks)

OR

- 10 a. Write a short on surface preparation and painting. (05 Marks)
 b. Explain various corrosion control and antifouling system in detail. (15 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.