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Fifth Semester B.E. Degree Examination, June/July 2024 Marine Auxiliary Machines

Time: 3 hrs.

Max. Marks: 100

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

Module-1

- 1 a. With a neat sketch, explain engine Fresh water cooling system. (10 Marks)
- b. Explain the Colour coding of different pipe line on board. (10 Marks)

OR

- 2 a. Draw the Blige line onboard the ship and explain how Blige water is transferred to Blige Well. (10 Marks)
- b. Explain the importance of Hydrophore system. (10 Marks)

Module-2

- 3 a. List the different types of valves used on board ship. Briefly explaining where each type of valve would be used. (10 Marks)
- b. Sketch and explain SDNR r/r. (10 Marks)

OR

- 4 a. Sketch and explain a Gate r/r. (14 Marks)
- b. What are Seals? Explain the different types of seals used in engine room machinery. (06 Marks)

Module-3

- 5 a. Explain the steps following during the overhaul of centrifugal pump. (06 Marks)
- b. What is Cavitation? List the methods to prevent Cavitation. (08 Marks)
- c. Why priming is needed for centrifugal pump? (06 Marks)

OR

- 6 a. Explain series and parallel operation of a centrifugal pump graphically. (06 Marks)
- b. Differentiate between centrifugal pump and positive displacement pump. (08 Marks)
- c. Write a short note on Gear pump. (06 Marks)

Module-4

- 7 a. With a neat sketch, explain shell and Tube Heat Exchanger. (10 Marks)
- b. Write a note on U-V sterilizer. (10 Marks)

OR

- 8 a. Explain the methods of Marine Heat Exchanger maintenance. (10 Marks)
- b. Explain the principle of Heat transfer. (10 Marks)

Module-5

- 9 a. Explain briefly about the Hydraulic telemotor system and control. (10 Marks)
- b. Explain Steering system testing and regulations. (10 Marks)

OR

- 10 a. Explain the working of 2 – ram Steering gear hydraulic system with a neat sketch. (10 Marks)
- b. Explain the working of the hunting gear mechanism, with a neat sketch. (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.