

CBCS SCHEME

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18MR54

Fifth Semester B.E. Degree Examination, June/July 2023 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. Draw the line diagram of the Fuel oil bunkering and transfer system onboard ship with all fittings. (12 Marks)
b. List the various line systems on board ship. Briefly explain the use of each system. (08 Marks)

OR

- 2 a. Write a brief note on Bunkering procedure. (12 Marks)
b. Draw the line diagram of the Bilge system onboard ship. (08 Marks)

Module-2

- 3 a. List the five difference between Gate valve and Globe valve. (10 Marks)
b. Draw and explain the operation of thermodynamic steam trap. (10 Marks)

OR

- 4 Explain the following:
i) Relief valve
ii) Pressure reducing valve
iii) Quick closing valve
iv) Butterfly valve. (20 Marks)

Module-3

- 5 a. List the difference between centrifugal pumps and positive displacement pumps. (10 Marks)
b. Draw and explain the centrifugal pump discharge characteristics. (10 Marks)

OR

- 6 a. Draw and explain gear pump. (10 Marks)
b. Draw a simple sketch of centrifugal pump and explain the working of centrifugal pump and explain the term cavitation in centrifugal pump. (10 Marks)

Module-4

- 7 a. Draw and explain the working of a shell and tube heat exchanger. (12 Marks)
b. Draw and explain the working of fresh water generator (or) distilling equipment. (08 Marks)

OR

- 8 a. Draw and explain the working of a plate type heat exchanger. (14 Marks)
b. Define conduction, convection, radiation. (06 Marks)

Module-5

- 9 a. Explain the working of 2-Ram steering gear hydraulic system with a neat sketch. (10 Marks)
b. Explain steering system testing and regulations. (10 Marks)

OR

- 10 a. Explain the working of the hunting gear mechanism with a neat sketch. (10 Marks)
b. Explain briefly about the hydraulic telemotor system and control. (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.