

CBCS SCHEME

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15MR53

Fifth Semester B.E. Degree Examination, Aug./Sept. 2020

Marine Auxiliary Machines – I

Time: 3 hrs.

Max. Marks: 80

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 pipelines onboard. (06 Marks)

OR

- 2 a. Draw the Bilge line onboard the ship and explain how Bilge water is transferred to Bilge Well. (12 Marks)
b. Explain the important of Hydrophore system. (04 Marks)

Module-2

- 3 a. With a neat sketch explain Swing check valve. (10 Marks)
b. Write down the difference between safety valve and relief valve. (06 Marks)

OR

- 4 a. With a neat sketch, explain globe valve. (10 Marks)
b. Write a note on refractory material. (06 Marks)

Module-3

- 5 a. Write a note on NPSH. (08 Marks)
b. What are the inspections to be carried out on a Pump and Motor during Overhauling? (08 Marks)

OR

- 6 a. Explain series and Parallel operation of a centrifugal pump graphically. (08 Marks)
b. With a sketch, explain the Working of Diaphragm pump (08 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. (06 Marks)

OR

- 8 a. Explain the methods of Marine Heat Exchanger Maintenance. (08 Marks)
b. Explain the principle of Heat transfer. (08 Marks)

Module-5

- 9 a. Sketch and explain four ram type steering gear system. (12 Marks)
b. What is the purpose of stern tube? (04 Marks)

OR

- 10 a. Sketch and explain two ram steering gear system. (12 Marks)
b. How do you conduct emergency steering operation? (04 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.