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Seventh Semester B.E. Degree Examination, June/July 2023 Advanced 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. List the Marpol annexes and explain mud discharge criteria for Annexes 1, 2 and 0. (15 Marks)
b. Explain the steps to be taken before operating the oily water separator. (05 Marks)

OR

- 2 a. Explain the working of the 15PPM monitor. (05 Marks)
b. Explain the working of a sewage treatment plant with the help of a neat diagram. (15 Marks)

Module-2

- 3 a. Explain the procedure for starting and stopping a fuel oil purifier. (10 Marks)
b. Explain the procedure for opening and cleaning of the purifier bowl. (10 Marks)

OR

- 4 a. Explain the theory of air compression and explain why the 2 stage air compressor is better than a single stage air compressor. (10 Marks)
b. Explain the operation and maintenance of Mooring Windlass and windlasses. (10 Marks)

Module-3

- 5 a. Explain the working of a vapor compression refrigeration system. (10 Marks)
b. Explain and list the various problems that can occur in a refrigeration system. (10 Marks)

OR

- 6 a. Explain the construction and working of a Air conditioning system in the ships accommodation. (10 Marks)
b. Explain the properties of a good refrigerant. (10 Marks)

Module-4

- 7 a. Explain the process of fractional distillation of crude oil and the products that come from it. (10 Marks)
b. Explain the various properties of Heavy fuel oil. (10 Marks)

OR

- 8 a. Explain the different types of lubrication. (10 Marks)
b. Explain the different properties of a good lubricant. (10 Marks)

Module-5

- 9 a. Explain the various types of maintenance techniques. (15 Marks)
b. Explain Risk Assessment. (05 Marks)

OR

- 10 a. Explain the procedure for inspection of the hull in dry docks (10 Marks)
b. What are the various modes of vibration on ships? (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.