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Fifth Semester B.E. Degree Examination, Jan./Feb. 2021

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. With a neat sketch, explain swing check valve. (10 Marks)
b. Write down the difference between safety valve and relief valve. (10 Marks)

OR

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

Module-3

- 5 a. Write a note on NPSH. (10 Marks)
b. What are the inspections to be carried out on a pump and motor during overhauling? (10 Marks)

OR

- 6 a. Explain series and parallel operation of a centrifugal pump graphically. (10 Marks)
b. With a neat sketch, explain the working of Diaphragm pump. (10 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. Sketch and explain four ram type steering gear system. (10 Marks)
b. What is the purpose of stern tube? (10 Marks)

OR

- 10 a. Sketch and explain two ram steering gear system. (10 Marks)
b. How do you conduct Emergency Steering Operation? (10 Marks)