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18MR56

Fifth Semester B.E. Degree Examination, July/August 2022 Marine Boilers

Time: 3 hrs.

Max. Marks: 100

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

Module-1

- 1 a. Write a short note on steam at its various applications. (10 Marks)
 b. Explain the categorization of boilers in detail. (10 Marks)

OR

- 2 a. Write a short note on material used for boiler construction. (10 Marks)
 b. Write a short note on air heaters. (10 Marks)

Module-2

- 3 a. Explain Reflex type Gauge Glass in detail. (10 Marks)
 b. Explain Gauge Glass Blow through procedure in detail. (10 Marks)

OR

- 4 a. What do you understand from the term "Boiler Mounting". List out them. (08 Marks)
 b. Explain any 6 boiler mountings in detail. (12 Marks)

Module-3

- 5 a. Explain the effects of salts in feed water in detail. (18 Marks)
 b. What is the need of boiler water tests onboard a ship? (02 Marks)

OR

- 6 a. What is Boiler Corrosion? Write down the causes of corrosion. (10 Marks)
 b. Explain Action in the event of shortage of water. (10 Marks)

Module-4

- 7 a. Describe the process by which a residual fuel oil is burnt in a boiler furnace. (10 Marks)
 b. Explain rotating cup type fuel oil burner in detail. (10 Marks)

OR

- 8 a. Discuss some of the common problems that can arise in the operation of Marine boilers. (16 Marks)
 b. Explain the drawbacks of a simple water level control by float method. (04 Marks)

Module-5

- 9 a. Explain flashing up the boiler in detail. (10 Marks)
 b. Explain boiling out of the pressure part in detail. (10 Marks)

OR

- 10 a. Explain Blowing down the boiler in detail. (10 Marks)
 b. Explain the General Maintenance of boilers for safe of efficient operation in detail. (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.