

CBCS SCHEME

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18MR53

Fifth Semester B.E. Degree Examination, Dec.2023/Jan.2024 Marine Internal Combustion Engine - I

Time: 3 hrs.

Max. Marks: 100

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

Module-1

- 1 a. What are I.C. Engines? Explain the classification of I.C. Engines. (10 Marks)
b. Sketch and explain the working of 2-stroke diesel engine. (10 Marks)

OR

- 2 a. Sketch and explain the working of 4-stroke diesel engine. (10 Marks)
b. Explain the differences between 2 stroke and 4 stroke engine. (10 Marks)

Module-2

- 3 a. With a neat sketch, explain bed plate. (10 Marks)
b. With a neat sketch, explain A-frame. (10 Marks)

OR

- 4 a. With a neat sketch, explain Tie Rod. (10 Marks)
b. With a neat sketch, explain cylinder liner. (10 Marks)

Module-3

- 5 a. Explain reverse flow scavenging with a neat sketch. (10 Marks)
b. Explain super charging or pressure charging. (10 Marks)

OR

- 6 a. Explain pulse type turbocharger with a neat sketch. (10 Marks)
b. Explain gas exchange process. (10 Marks)

Module-4

- 7 a. Explain causes, effects and indications of crank case explosions. (12 Marks)
b. Write a note on starting air line explosion. (08 Marks)

OR

- 8 a. What is scavenge fire? Explain causes, effects and indications of scavenge fire. (12 Marks)
b. Write a note on microbial degradation of fuel. (08 Marks)

Module-5

- 9 a. Explain the types of lubrication. (10 Marks)
b. List and explain the methods for selection of lubricants. (10 Marks)

OR

- 10 a. Explain the desirable properties of lube oil related to marine diesel engines. (10 Marks)
b. Write a note on lube oil testing. (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.