

CBCS SCHEME

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18MR53

Fifth Semester B.E. Degree Examination, June/July 2023 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. Explain the following power rating in short:
(i) M.C.R. (ii) C.S.R. (iii) Overload Rating (iv) Astern output
(v) Continuous power (vi) Rated power (vii) Overload power (10 Marks)
b. Write a note on slow speed engine. (10 Marks)

OR

- 2 a. Draw a neat sketch of timing diagram of 2 stroke engine. (10 Marks)
b. Write the classification of engine. (10 Marks)

Module-2

- 3 a. Draw a structure of 'A' frame and explain its parts. (10 Marks)
b. Explain the type of crank shaft. (10 Marks)

OR

- 4 Write a short note on the function of the cooling system in a marine diesel engine. (20 Marks)

Module-3

- 5 a. What do you understand from the term "super charging" and how it may be accomplished? (10 Marks)
b. With the help of neat sketch, explain in detail about scavenging and its types. (10 Marks)

OR

- 6 a. Write the faults that occur in turbochargers. (10 Marks)
b. What is surging? Write down the reason and action to be taken. (10 Marks)

Module-4

- 7 What is starting air explosion? Write down the safeties, action, prevention for it. (20 Marks)

OR

- 8 What is scavenge fire? Write down the indication, action, prevention for it. (20 Marks)

Module-5

- 9 a. What is the function of lubrication and briefly explain types of lubrication? (10 Marks)
b. Draw a fuel injector diagram and explain its parts. (10 Marks)

OR

- 10 Explain cube oil properties in detail. (20 Marks)

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.