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10MR61

Sixth Semester B.E. Degree Examination, June/July 2018
Marine Internal Combustion Engine – II

Time: 3 hrs.

Max. Marks:100

Note: Answer any FIVE full questions, selecting at least TWO questions from each part.

PART – A

- 1 a. Write a note on Jerk type fuel pump and common rail systems. (12 Marks)
b. Explain static balancing and dynamic balancing. (08 Marks)
- 2 a. What do crash maneuvering? Explain the procedure of crash maneuvering operation. (10 Marks)
b. Explain reversing procedure of main diesel engine. (10 Marks)
- 3 a. Write the preparation and procedure for taking indicator diagram. (08 Marks)
b. Describe types of indicated diagram with neat sketch. (12 Marks)
- 4 a. Explain different types of lube oil test. (10 Marks)
b. Explain cylinder liner wear and the preventive measures. (10 Marks)

PART – B

- 5 a. Write a note on free piston engine gasifiers and conventional internal combustion engine. (10 Marks)
b. Explain with diagram the heat exchanger and reheat arrangement in gas turbine plant. (10 Marks)
- 6 a. What are the minimum requirements of automation for UMS operation? (10 Marks)
b. Explain different alarm and fail safe systems designed in automated UMS ship. (10 Marks)
- 7 a. With neat sketch explain the procedure for taking crankshaft deflection. (10 Marks)
b. Describe the procedure for removal of main bearing of marine diesel engine. (10 Marks)
- 8 a. Explain microbiological degradation in fuel and lub oil and its preventive measures. (10 Marks)
b. Write a note on hot and cold corrosion. (05 Marks)
c. Write a note on regulations for control of NOx. (05 Marks)

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