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10MR61

Sixth Semester B.E. Degree Examination, June/July 2015
Marine Internal Combustion Engines - II

Time: 3 hrs.

Max. Marks:100

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

PART - A

- 1 a. Draw and explain fuel pump of sulzer (wartsila) engine. (10 Marks)
b. Write a note on different types of vibrations acting on main engine and measures to counter vibration. (10 Marks)
- 2 a. Draw Wartsila maneuvering diagram and explain the following : (10 Marks)
i) Reversing servomotor ii) Rotation direction safeguard iii) Reversing valve.
b. Explain Safety precautions for starting and reversing. (10 Marks)
- 3 What are performance characteristic curves? With diagram explain atleast 8 characteristic curves. (20 Marks)
- 4 a. Why lube oil testing is done? Explain the following tests : (14 Marks)
i) Water content test ii) Viscosity test iii) PH test iv) Flash point test.
b. Draw and explain electronic cylinder lubrication. (06 Marks)

PART - B

- 5 a. Write a short note on heat exchangers. Draw the following : (12 Marks)
i) Shell and tube type heat exchanger ii) Plate type heat exchanger.
b. Write a note on free piston engine gasifiers. (08 Marks)
- 6 a. What are the checks to be carried before going UMS? (14 Marks)
b. Checks to be carried out to test alarms. (06 Marks)
- 7 a. Write a note on crankshaft host deflection and alignment. (10 Marks)
b. Write a note on electronic speed governors. (10 Marks)
- 8 a. What is Hot and cold corrosion? (08 Marks)
b. Write down the Marpol Annex 6 regulations for control of NOx (Tier I, Tier II , Tier III). (12 Marks)
