

USN

--	--	--	--	--	--	--	--	--	--

10MR61

Sixth Semester B.E. Degree Examination, June/July 2017
Marine Internal Combustion Engine – II

Time: 3 hrs.

Max. Marks:100

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

PART – A

- 1 a. With sketch explain how jerk type fuel pump works. (08 Marks)
b. Draw and explain common rail system. (08 Marks)
c. What is vibration? Mention engine vibration causes. (04 Marks)
- 2 a. Explain reversing procedure of main diesel engine. (08 Marks)
b. What is crash maneuvering? Explain the procedure of crash maneuvering operation. (07 Marks)
c. What are interlocks? Mention safety interlocks on marine diesel engine. (05 Marks)
- 3 a. Describe types of indicated diagram with neat sketch. (10 Marks)
b. Explain various tests conducted during sea trial of marine diesel engine on new ships. What are the parameters observed during test? (10 Marks)
- 4 a. Explain lines wear and the preventive measures. (10 Marks)
b. Explain the tests conducted to determine the condition of lube oil on-board ship. (10 Marks)

PART – B

- 5 a. Explain with diagram the heat exchanger and reheat arrangement in gas turbine plant. (12 Marks)
b. Give advantages and disadvantages of marine as turbine over marine diesel engine. (08 Marks)
- 6 a. Describe with sketch how a mechanical hydraulic governor works. (10 Marks)
b. State minimum requirements of automation for UMS operation. (10 Marks)
- 7 a. Describe with sketch the procedure for removal of main bearing of marine diesel engine. (12 Marks)
b. Describe the procedure for tie rod tensioning of marine diesel engine. (08 Marks)
- 8 a. What do you understand by microbiological degradation? What are preventive measures? (06 Marks)
b. What is 'Intelligent engine'? Explain 'Camless concept' for marine diesel engine and its advantages. (10 Marks)
c. Explain hot corrosion and cold corrosion on marine diesel engine. (04 Marks)

* * * * *

Important Note : On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.