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10ML61

**Sixth Semester B.E. Degree Examination, June/July 2019**  
**Marine Internal Combustion Engine – II**

Time: 3 hrs.

Max. Marks:100

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

**PART – A**

- 1 a. Write a short note on following :
  - i) Reduction of engine vibration
  - ii) detuners
  - iii) dampers. (10 Marks)
- b. What do you understand by the term (V.I.T) variable injection timings and what are its advantages. (10 Marks)
- 2 a. If the automatic valve should fail during maneuvering of the engine, what provisions and made so that maneuvering of the engine can be continued. (10 Marks)
- b. Show in diagrammatic form the various parts of a starting air system for a slow-speed main engine. Show the piping connecting the various parts. (10 Marks)
- 3 a. Explain the purpose of indicator diagrams and its types. (10 Marks)
- b. Write a short note on faults with indicator instruments. (10 Marks)
- 4 a. Explain in detail about various contamination of lubricating oil. (10 Marks)
- b. Write a short note on residual fuel treatment. (10 Marks)

**PART – B**

- 5 a. Draw a neat sketch of schematic layout of intercooled recuperated (ICR) cycle and simple-cycle gas turbines. (Rolls-Royce). (10 Marks)
- b. What are the merits cited for gas turbine propulsion plant in commercial tonnage? (10 Marks)
- 6 a. What is the basic function of the Governor and explain mechanical governor with the help of suitable diagram. (10 Marks)
- b. What are the essential requirement to be met, in order to ensure the safety of the ship and its equipment during UMS operation? (10 Marks)
- 7 a. Explain electronic governor and mention its advantages and disadvantages. (10 Marks)
- b. Write a short note on Tie-Rod tensioning methods. (10 Marks)
- 8 Explain in detail about ME-intelligent electronically controlled camshaft-Less engines. (20 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.