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10MR61

**Sixth Semester B.E. Degree Examination, June/July 2016**  
**Marine Internal Combustion Engine – II**

Time: 3 hrs.

Max. Marks: 100

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

**PART – A**

- 1 a. Explain static balancing and dynamic balancing. (05 Marks)
- b. Explain in detail about suction and spill valve controlled fuel pump with neat sketch. (15 Marks)  
Mention its advantage and disadvantage.
- 2 a. Explain maneuvering flow chart. (08 Marks)
- b. Explain the reversing methods with neat sketch. (12 Marks)
- 3 a. Explain the types of indicator diagram with neat sketch. (12 Marks)
- b. Explain the faults in indicator instruments with neat sketch. (08 Marks)
- 4 a. Draw and explain lubrication arrangement in diesel engine including coolers and filters. (12 Marks)
- b. Explain the various on board lube oil tests. (08 Marks)

**PART – B**

- 5 a. Draw a neat sketch of schematic layout of intercooled-reheat cycle type gas turbine and explain. (15 Marks)
- b. Write the merits cited for gas turbine propulsion plant in commercial tonnage. (05 Marks)
- 6 a. Draw the concept of intelligent engine electronically controlled common rail system used in Subzer RT-flex. (10 Marks)
- b. Write a note on sensitivity, stability, governor effect, dead band, hunting in governors. (10 Marks)
- 7 a. Write the safety precautions to be observed before doing a maintenance on main engine. (10 Marks)
- b. Explain the procedure of taking crankshaft deflection with neat sketch. (10 Marks)
- 8 a. What are the causes of high exhaust temperature in all units? (10 Marks)
- b. Explain microbiological degradation in fuel and lub oil. (10 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.

