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10MR64

Sixth Semester B.E. Degree Examination, Dec.2016/Jan.2017
Marine Electrical Technology

Time: 3 hrs.

Max. Marks:100

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

PART – A

- 1 a. Draw and explain construction and working of brushless alternator. (12 Marks)
b. Draw and explain construction and working of automatic voltage regulator. (08 Marks)
- 2 a. Explain the construction, working, charging, and discharging of lead acid battery with neat sketch. (10 Marks)
b. Explain share supply connection box with neat circuit sketch. (10 Marks)
- 3 a. Explain the various distribution systems used onboard with neat sketch. (10 Marks)
b. Explain the construction and working of synchro-scope with neat sketch. (10 Marks)
- 4 a. Explain star delta starts with neat sketch. (10 Marks)
b. Explain single phasing with neat sketch. (05 Marks)
c. Explain soft starts with neat sketch. (05 Marks)

PART – B

- 5 a. Explain navigational light circuit with neat sketch. (10 Marks)
b. Explain CO₂ cabinet door alarm with neat sketch. (10 Marks)
- 6 a. Explain the various testing done using megger on 3 ϕ induction motor with neat sketch. (15 Marks)
b. Draw the construction circuit diagram of megger. (05 Marks)
- 7 a. Draw and explain basic turbo-electric propulsion system. (10 Marks)
b. Explain Ex'd', Ex'e', Ex'p', 'N', Ex'i' equipments. (10 Marks)
- 8 a. Explain DO's and DO NOT's when working with electrical equipment. (10 Marks)
b. Explain electrical shock and sketch the caution board for electrical shock risk. (10 Marks)

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2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42.8 = 50. will be treated as malpractice.