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10MR64

Sixth Semester B.E. Degree Examination, June/July 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. List out the Merits and Demerits of AC and DC on board in a ship. (08 Marks)
b. With construction and operational diagram explain brushless generator in ship. (08 Marks)
c. Write any four rules and regulations governing electrical machineries on ship. (04 Marks)
- 2 a. What are the different emergency batteries? Explain any one in detail. (10 Marks)
b. What are different emergency generator starting methods? Explain any one detail. (10 Marks)
- 3 a. Explain in detail about the need of main and Emergency switch board in ship. (10 Marks)
b. With neat diagram explain different distribution system used in the ship (05 Marks)
c. With the circuit explain Grounded and Insulated (Earthed and Isolated) Neutral system. (05 Marks)
- 4 a. What are the different protective devices used for marine electrical motor protection? Explain briefly. (10 Marks)
b. With the help of neat circuit explain star delta starter used in electrical motor. (10 Marks)

PART – B

- 5 a. What is the need of alarm system in ship? List and explain different alarm system in ship. (10 Marks)
b. With the circuit explain in detail about oxygen Analyzer used in on board ships. (10 Marks)
- 6 a. Explain in detail the different steps involved in Fault finding. (10 Marks)
b. Explain different testing Equipment used for maintenance of Electrical system in ship. (10 Marks)
- 7 a. Explain in detail about different tanker classification and their Dangerous spaces. (10 Marks)
b. Explain in detail about the following
i) Flameproof (Ex'd) equipment
ii) Increased safety (Ex'e) equipment
iii) Intrinsic safety (Ex'i')
iv) Nm – sparking (Ex 'n' or 'N') equipment. (10 Marks)
- 8 a. Why the safe watch keeping is required in ship? What are the facts should be followed by officers in charge of the navigational watch system? (10 Marks)
b. Explain the need of Firefighting Equipment in ship's Engine room and discuss the different fire fighting system in ship. (10 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.