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**Sixth Semester B.E. Degree Examination, June/July 2016**  
**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. With the constructional and operational diagram explain brushless generator in detail. (10 Marks)  
b. List out the Merits and Demerits of AC and DC on board. (10 Marks)
- 2 a. What are the different emergency batteries used in ship? Explain any one, in detail. (10 Marks)  
b. With block diagram explain in detail about shore supply. (10 Marks)
- 3 a. Explain in detail on the need of main and Emergency switch board in ship for electrical power distribution. (10 Marks)  
b. With the help of circuit diagram, explain Grounded and Insulated neutral system. (10 Marks)
- 4 a. What are the different protective devices used for marine electrical motor protection? Explain them briefly. (10 Marks)  
b. With the help of neat circuit diagram explain why the star-delta starter is preferred for electrical motor starting? (10 Marks)

**PART – B**

- 5 a. Explain in detail the Emergency Radio operation and hence brief, key radio call procedures. (10 Marks)  
b. With the circuit explain in detail about oxygen Analyzer used in ships on boards. (10 Marks)
- 6 a. Explain in detail the steps involved in an electrical fault finding and Repair. (10 Marks)  
b. What are the commonly used testing equipment and meters for electrical maintenance in ship? Explain briefly. (10 Marks)
- 7 a. Explain in detail, different tanker classifications and their Dangerous spaces. (10 Marks)  
b. With a neat block diagram explain basic turbo – electric propulsion system. (10 Marks)
- 8 a. Explain the need for Firefighting equipment in ship's Engine room and discuss the different fire fighting system in ship. (10 Marks)  
b. What are the different steps to minimize the risk of an electrical shock on board? (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.