

***B.Tech Degree VI Semester Examination in
Marine Engineering, November 2009***

MRE 602 MARINE ELECTRICAL TECHNOLOGY

Time : 3 Hours

Maximum Marks : 100

- I. (a) Explain the rules and regulations governing electrical machineries on ships. (10)
(b) Explain the different types of alternator excitation systems. (10)
OR
- II. (a) Discuss merits and demerits of using A/C or D/C on ships. (10)
(b) What actions to be taken to fight a fire in one of the consoles? (10)
- III. (a) Explain different types of AC distribution in ships. (10)
(b) What are the basic requirements for an emergency power system on board a ship? (10)
OR
- IV (a) What is the significance of earth faults in an earthed neutral system? Explain with a suitable diagram. (10)
(b) Explain the working of a single phase motor. (10)
- V. Write short notes on the following :
(i) E/K telegraph
(ii) AVR
(iii) Salino meter (20)
OR
- VI. (a) Draw and explain the portable oxygen analyzer. (10)
(b) What are the general requirements of a fire alarm and detection system? (10)
- VII (a) Explain how an earth fault in a deck light fitting is detected and rectified. (10)
(b) What are the necessary conditions to be satisfied before paralling two generators? Explain. (10)
OR
- VIII. (a) Alternator fails to develop voltage. What are the possible reasons and remedial action? (10)
(b) Write short note on megger. (10)
- IX Discuss the maintenance and tests required in the case of the following.
(i) Electric cargo winches
(ii) Emergency generators
(iii) Motor starters
(iv) Electric warning devices (20)
OR
- X. (a) Identify the hazardous areas on a ship and determine what type of equipment should be installed in each location. (10)
(b) List the various types of explosion proof equipment and explain each type in one or two sentences. (10)