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Date: 02/12/2015.

Student Exam No. _____

GANPAT UNIVERSITY

B. Tech. Semester: V (Marine) Engineering

Regular Examination Nov – Dec 2015

2MR505 Marine Electro Technologies

Time: 3 Hours

Total Marks: 70

- Instruction:** (1) Attempt all Questions.
(2) Assume suitable data if necessary.
(3) Start new Question on New Page.

Section – I

- Que. – 1 a) What are the basic indicators available on the Emergency Switch board? 6
b) Explain effects of temperature on electrical equipment on board a ship? 6

OR

- Que. –1 a) Why is shore supply required? Explain with the diagram of 6
Shore supply Arrangement.

- b) List the Important features in a Modern AVR. 6

- Que. – 2 a) Why AC distribution preferred over DC distribution on board a ship? 6

- b) What is single phasing? List the causes of the same 5

OR

- Que. – 2 Write short notes on Auto-synchronising. 5

- Explain - Why Diesel Electric propulsion system is economical? 6

- Que. – 3 Explain – Operation of a brushless Alternator. (Sequence wise) 12

Section – II

Que. – 4 a) What precautions must be taken before working on High-Voltage Equipment. 6

b) List the main Features of the Maintenance –free Sealed Lead acid Batteries. 6

OR

Que. – 4 a) What is Auxiliary Steering Gear? 3

b) Explain - “Rudder Position Indicator” 3

c) Briefly Explain the purpose of a Space heater fitted in alternator. 6

Que. – 5 a) List the Advantages and Disadvantages of MCB’s. 6

b) List the Indicators provided for monitoring the operating conditions of the steering gear motor. 5

OR

Que. – 5 a) What arrangement is used In Battery charging equipment? List the Types of Charge for a storage battery. 6

b) Explain the Emergency Generator’s Routine Testing Procedure through the Flow chart. 5

Que. – 6 a) What are the main Components of the soft starter? Explain Briefly. 6

b) What safety precautions are to be taken after any maintenance / Repair is carried out on a generator? 6