CBCS SCHEME

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18MR63

# Sixth Semester B.E. Degree Examination, Jan./Feb. 2023
# Marine Electrical Technology

Time: 3 hrs. Max. Marks: 100

**Note:** ***Answer any FIVE full questions, choosing ONE full question from each module.***

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.

VTU EXAMS Jan/Feb. 2023

## Module-1

1 a. Write a short note on :
i) Effects of inclination ii) Hazardous areas **(12 Marks)**
b. Explain the common system for distribution of AC power. **(08 Marks)**

**OR**

2 a. Define the types of tanker installations. **(04 Marks)**
b. Write a short note on Shore supply **(10 Marks)**
c. Draw a neat sketch of a ship's typical electrical distribution system. **(06 Marks)**

## Module-2

3 a. Briefly explain detection and clearance of an Earth fault. **(10 Marks)**
b. What is an AVR? Mention the operating principle an AVR. **(03 Marks)**
c. Write a short note on : i) Effect of kW loading ii) Effect of KVA loading. **(07 Marks)**

**OR**

4 Explain the two synchronizing method used on boardship with the help of a neat diagram. **(20 Marks)**

## Module-3

5 a. Briefly explain the classes of insulation. **(10 Marks)**
b. Write a short note on : i) Cable sheath ii) Cable gland. **(10 Marks)**

**OR**

6 a. What are the signals for a power driven ship under way (night)? **(12 Marks)**
b. What is HCLPMFL? Explain the working with a schematic diagram. **(08 Marks)**

## Module-4

7 a. Explain the working of a cycloconverter with the help of a neat diagram. **(10 Marks)**
b. Briefly explain the layout and optimizing storage space. **(10 Marks)**

**OR**

8 What do you mean by electrohydraulic steering system? Also explain the four RAM type of steering system. **(20 Marks)**

## Module-5

9 Briefly explain Cathodic protection system **(20 Marks)**

**OR**

10 Write a short note on :
i) The combustible Gas Indicator
ii) Portable Oxygen Analyzer
iii) Tankscope
iv) Fixed Oxygen Analyzer (Monday cell type) **(20 Marks)**

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