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Fourth Semester B.E./B.Tech Degree Examination, June/July 2024

Marine Electrical Technology

Time: 3 hrs.

Max. Marks: 100

*Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.*

Module – 1			M	L	C
Q.1	a.	Define the following : i) Normal Operational Condition ii) Emergency Condition , iii) Dead ship Condition iv) Primary Essential Services v) Secondary Essential Services.	10	L2	CO1
	b.	What are the basic types of excitation system available? Explain self – excitation system with the help of block diagram in detail.	10	L2	CO2
OR					
Q.2	a.	What are the essential condition for smooth parallel operation of alternators? Explain in detail about synchronizing with the aid of lamps.	14	L3	CO3
	b.	Write down the SOLAS regulations requirements for emergency generator onboard a ship.	6	L3	CO3
Module – 2					
Q.3	a.	What is a store supply connection? Explain bout it in detail.	10	L3	CO4
	b.	What is Deadman alarm system? Explain about it in detail.	10	L1	CO4
OR					
Q.4	a.	Explain in detail about insulated and earthed neutral system onboard a ship.	12	L2	CO1
	b.	Explain about dangerous Zone and its different categories in brief	8	L2	CO2
Module – 3					
Q.5	a.	What is Motor Protection? Write short notes on it.	10	L2	CO2
	b.	Explain construction of operation of a DC motor in detail.	10	L2	CO2
OR					
Q.6	a.	Explain D.O.L stating with their advantages in detail.	10	L	CO
	b.	Explain in detail about intrinsically safety circuits.	10	L	CO
Module – 4					
Q.7	a.	What is GMDS system? Explain about it in detail.	12	L2	CO4
	b.	With the help of a line diagram, explain a basic emergency power supply system in short.	8	L2	CO4
OR					
Q.8	a.	Define the following : i) UPS ii) Offline UPS unit iii) On-line UPS unit iv) Line – interactive UPS unit.	8	L2	CO4
	b.	With the help of a line diagram, explain in detail about a Navigation Light Circuit (circuit De-energised).	12	L2	CO4
Module – 5					
Q.9	a.	Explain overhauling of motor when insulation is zero in detail.	10	L4	CO4
	b.	Explain in detail about various electrical diagrams.	10	L4	CO3
OR					
Q.10	a.	Explain the DO's and Don't's while working with Batteries.	10	L4	CO3
	b.	Write short notes on Insulation testing of continuity testing.	10	L2	CO3
