

Reg. No.

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B.E./B.TECH. DEGREE EXAMINATIONS, MAY 2024
 Eighth Semester
MR18008 – MARINE MAINTENANCE ENGINEERING
(Marine Engineering)
(Regulation 2018/2018A)

TIME: 3 HOURS

MAX. MARKS: 100

COURSE OUTCOMES	STATEMENT	RBT LEVEL
CO 1	Students will have knowledge on Over hauling of slow speed diesel engines.	3
CO 2	Students will have knowledge on Over hauling of medium speed diesel engines.	3
CO 3	Students will have knowledge on Maintenance of auxiliary machinery-I.	2
CO 4	Students will have knowledge on Maintenance of auxiliary machinery-II.	2
CO 5	Students will have knowledge on Maintenance and testing of electrical machineries.	1

PART- A (10 x 2 = 20 Marks)
 (Answer all Questions)

	CO	RBT LEVEL
1. Meaning of unit-decarbonizing.	1	1
2. Scavenge fire. Who will you inform first?	1	2
3. Name the cylinder head mountings of medium speed diesel engine.	2	1
4. How to test safety cut outs of medium speed diesel engine?	2	1
5. How will you start main air compressor manually?	3	2
6. In shell and tube cooler, what periodical maintenance needed to be carried out?	3	2
7. Explain the functioning of purifier and clarifier.	4	1
8. The purpose of oil record book.	4	1
9. State three underlying causes of electrical equipment failure?	5	2

- 10.** With reference to electrical motors, state the routine maintenance that is necessary. **5 2**

PART- B (5 x 14 = 70 Marks)

		Marks	CO	RBT LEVEL
11. (a)	Describe with the aid of a sketch, the operational principles of a main engine exhaust gas turbocharger.	(14)	1	2
	(OR)			
(b)	(i) Describe the actions to be taken by the Engineer Officer of the watch on discovering scavenge fire.	(7)	1	2
	(ii) State two dangers of allowing a scavenge fire to exist.	(7)	1	2
12. (a)	Describe with the aid of sketches, the operation of a four stroke cycle diesel engine.	(14)	2	1
	(OR)			
(b)	(i) With reference to a small diesel engine that requires use of a starting handle. State the procedure for starting.	(7)	2	1
	(ii) State eight reasons that would cause difficulty in starting.	(7)	2	1
13. (a)	(i) With reference to main starting air compressors, State three maintenance procedures that maintain their efficiency.	(7)	3	2
	(ii) Describe the procedure for the manual starting of a compressor.	(7)	3	2
	(OR)			
(b)	Sketch a cross section of a horizontally mounted two pass, tubular heat exchanger suitable for lubricating oil cooling, showing the flow path of the fluids, labelling all parts.	(14)	3	2
14. (a)	(i) Explain the factors that have an influence as the separating process within a centrifugal purifiers.	(7)	4	2
	(ii) Explain two reasons for a purifier not attending full running speed.	(7)	4	2
	(OR)			
(b)	(i) Describe the procedure for operating the oily water separator.	(7)	4	2
	(ii) State two ways that the separator would be made to operate more efficiently.	(7)	4	2
15. (a)	(i) With reference to electrical motor, State the routine maintenance that it is necessary.	(7)	5	1
	(ii) Describe the tests carried out to prove good electrical condition.	(7)	5	1

(OR)

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|------------|---|------------|----------|----------|
| (b) | (i) State four different causes of earth faults. | (7) | 5 | 1 |
| | (ii) For each cause stated (i) explain how the fault is rectified. | (7) | 5 | 1 |

PART- C (1 x 10 = 10 Marks)

(Q.No.16 is compulsory)

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LEVEL |
|------------|--|--------------|-----------|----------------------|
| 16. | State with reasons eight areas or items which should be checked by the duty Engineer Officer before taking over the watch. | (10) | 1 | 2 |
