

Reg. No.

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B.E. / B.TECH. DEGREE EXAMINATIONS, MAY 2024

Eighth Semester

MR18803 – SAFETY PRECAUTIONS AND WATCH KEEPING*(Marine Engineering)***(Regulation 2018)****TIME: 3 HOURS****MAX. MARKS: 100**

COURSE OUTCOMES	STATEMENT	RBT LEVEL
CO 1	Students will have knowledge about STCW standards of training, requirements of officers and ratings.	3
CO 2	Students will have knowledge about Watch-keeping in various ships.	3
CO 3	Students will have knowledge about Prevention, rectification and maintenance with respect to trouble shooting of machineries in the Engine Room.	3
CO 4	Students will have knowledge about Troubleshooting related to main engines.	3
CO 5	Students will have knowledge about Troubleshooting related to Electrical components.	3

PART- A (10 x 2 = 20 Marks)

(Answer all Questions)

	CO	RBT LEVEL
1. What is meant by safe working practice?	1	1
2. Name any four bad weather precautions.	1	1
3. What is short cycling in refrigerating compressor?	2	1
4. Why do we soot blow a boiler?	2	1
5. What does white smoke from a boiler flue gas outlet indicate?	3	2
6. What are the causes for diesel knock?	3	2
7. What is the purpose of over speed trip in an auxiliary engine?	4	2
8. State a few reasons for excess pressure in a combustion chamber of an engine.	4	2
9. What do you check while connecting shore supply to a vessel?	5	1

10. What is an intrinsically safe equipment?

5 2

PART- B (5 x 14 = 70 Marks)

	Marks	CO	RBT LEVEL
11. (a) Describe the procedure to take over watch while the vessel is underway.	(14)	1	3
(OR)			
(b) (i) Describe your action for: Rescue of an injured person.	(7)	1	3
(ii) Flooding of engine room bilges.	(7)	1	3
12. (a) Describe the inspection carried out at dry-dock on Hull, Propeller and Rudder.	(14)	2	3
(OR)			
(b) (i) Explain the causes and remedies for No discharge from Centrifugal pump.	(7)	2	3
(ii) Excessive purifier vibration.	(7)	2	3
13. (a) What are the causes and prevention of starting airline explosion?	(14)	3	3
(OR)			
(b) (i) Troubleshoot the cause and state remedies for Reduction in power output of main engine.	(7)	3	3
(ii) Main engine exhaust uptake fire.	(7)	3	3
14. (a) Explain in detail with all precautions for the removal and inspection of 2 stroke engine liner.	(14)	4	3
(OR)			
(b) How will you open up a large 2 stroke engine bottom end bearing for inspection? Indicate all safety precautions.	(14)	4	3
15. (a) (i) What inspection and maintenance is carried out on an AC induction motor?	(7)	5	3
(ii) What precautions are taken while doing work on main switch board? Justify with reasons.	(7)	5	3
(OR)			
(b) (i) With respect to batteries on board state the maintenance carried out and the precautions.	(7)	5	3

- (ii) What is a hazardous area and state the precautions and checks while working in such area? (7) 5 3

PART- C (1 x 10 = 10 Marks)

(Q.No.16 is compulsory)

- | | Marks | CO | RBT
LEVEL |
|--|-------|----|--------------|
| 16. State the procedure with associated precautions for changing oil in an electro hydraulic governor. Indicate the suitable oil with reasons. | (10) | 4 | 3 |
