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B.E. / B.TECH. DEGREE EXAMINATIONS, DEC 2019

Fifth Semester

MR16503 – MARINE AUXILIARY MACHINERY – II*(Marine Engineering)***(Regulation 2016)****Time: Three Hours****Maximum : 100 Marks**Answer **ALL** questions**PART A - (10 X 2 = 20 Marks)**

		CO	RBT
1.	What is meant by coalesces and where it is used?	1	R
2.	What is meant by BOD in sewage treatment plant?	1	R
3.	What are all the safety devices fitted in the windlass?	2	R
4.	How will you choose the gravity disc for the Purifier?	2	U
5.	What is the purpose of thrust block?	3	R
6.	List some advantages of oil lubricated stern tube.	3	R
7.	List some maintenance works carried on ship during dry-docking.	4	R
8.	What is the purpose of Sacrificial anodes?	4	R
9.	What do you mean by risk assessment?	5	R
10.	What is meant by planned maintenance?	5	R

PART B - (5 X16 = 80 Marks)

11. (a) Explain the construction and operation of Incinerator with neat sketch. **(16)** **1** **U**

(OR)

- (b) (i) Explain the construction and operation of sewage treatment plant. **(12)** **1** **U**
- (ii) Explain the discharge criteria for sewage followed on board ship. **(4)** **1** **U**

12. (a) (i) Draw and explain the construction and working of fuel oil purifier. (10) 2 U

(ii) Explain the starting and stopping procedure of purifier. (6) 2 U

(OR)

(b) Draw and explain the operation and the maintenance of Air compressor. (16) 2 U

13. (a) (i) Why thrust block is provided? Explain the constructional details of trust block. (8) 3 U

(ii) Draw and explain the sealing arrangement provided in the stern tube. (8) 3 U

(OR)

(b) Explain the various methods involved in Shaft alignment. (16) 3 U

14. (a) (i) How will you perform maintenance in the propeller? (8) 4 U

(ii) List some of the safe working practices during dry-dock works (8) 4 U

(OR)

(b) Explain the preparation and procedure for dry-docking a vessel. (16) 4 U

15. (a) What is meant by Tribology? Explain the methods involved to minimize the wear and tear on the shaft bearing s in detail. (16) 5 U

(OR)

(b) Explain the following in detail:

a) Planned maintenance (6) 5 U

b) Condition monitoring (6) 5 U

c) Preventing maintenance (4) 5 U