

Reg. No. : **E N G G T R E E . C O M**

Question Paper Code : 21404

B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2023.

Fifth Semester

Marine Engineering

MV 3501 – MARINE PROPULSION

(Regulations 2021)

For More Visit our Website
EnggTree.com

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Define the law of floatation.
2. What is a marine propulsion system?
3. Define Block coefficient.
4. What are the effects of the tide on shipping?
5. What are the factors affecting the ships speed?
6. How many gallons of fuel does a container ship carry?
7. Define blade angle.
8. List some examples for propeller materials.
9. What are the pivoting points for the ship?
10. Why is the rudder angle limited to 35 degrees?

PART B — (5 × 13 = 65 marks)

11. (a) Write a short note on the Marine propulsion equipment with a neat diagram.

Or

- (b) Discuss in detail the modern propelling methods.

12. (a) Why is it necessary for ships to have Load Lines? Explain the types of load lines with a neat diagram.

Or

- (b) Discuss in detail the various methods to stabilize the ship.

13. (a) Briefly describe the current developments in hull drag and ship wake.

Or

- (b) What is Cavitation? Illustrate the effects of cavitation. Mention its applications.

14. (a) Distinguish between fixed propeller and control pitch propeller with a neat sketch.

Or

- (b) Explain the various types of blade propellers.

15. (a) Discuss in detail about various types of rudders.

Or

- (b) Explain in detail about the basic construction of the rudder.

www.EnggTree.com
PART C — (1 × 15 = 15 marks)

16. (a) Briefly describe the current developments in advanced propulsion systems for ships worldwide.

Or

- (b) Design a ship propeller with a suitable reference. Also, explain Rake and Skew for ship propeller design.