

INDIAN MARITIME UNIVERSITY
(A Central University , Government of India)

B Sc (Nautical Science)

Semester I

June 2023 ESE

General Ship Knowledge

Subject Code: UG21T5105

Time: 3 Hours

Max Marks: 70

Date: 13 June 2023

Pass Marks: 35

Note : Part A and B are compulsory. Attempt any 5 questions out of remaining 7 questions.

PART A

(All questions carry 1 mark)

1. Anti-heeling tanks are found in _____ type of ships.
2. The purpose of the bilge keel is _____
3. Extreme length of the ship is called
 - a. Forward perpendicular
 - b. Aft perpendicular
 - c. Length between perpendicular
 - d. Length over all
4. How Tropical load line is placed with respect to summer load line
 - a. 1/48 th of Summer draft below the Summer line
 - b. 1/48 th of Summer draft above the Summer line
 - c. 50 mm below fresh water load line
 - d. 540 mm below Tropical fresh line
5. The Purpose of the steering gear
 - a. to stop the engine in emergency
 - b. to turn the rudder
 - c. to control the propeller RPM
 - d. to steer the generator
6. In the tropical Load line zone you shall load less cargo than in the Summer Load line Zone - True / False
7. What is the use of air pipe of a tank?
 - a. Used for measuring quantity of liquid in tank

- b. prevent air being trapped under pressure in the tank when it is filled, or a vacuum being created when it is emptied.
 - c. Used for filling of tank
 - d. Fill air in the tank
8. Falling of sea level during tide is
- a. Flood tide
 - b. Ebb tide
 - c. High water
 - d. Low water
9. One hour of time zone covers longitudes of
- a. 7.5 degrees
 - b. 15 degrees
 - c. 22.5 degrees
 - d. 14.5 degrees
10. Hawse pipe is a part of ship's
- a. Life-saving appliances
 - b. Fire fighting system
 - c. Cargo loading system
 - d. Anchoring system

PART B

Define / State the following

(2X5=10 marks)

- 11. Define "Forward Perpendicular"
- 12. State the purpose of the Deck line
- 13. What is a Cargo pump room?
- 14. Define "Current".
- 15. What is the purpose of bilge keel?

PART C

16.

- (a) List out different types of ships. (5 marks)
- (b) Write short notes on Oil tanker vessels and state its various types. (5 marks)

17. Sketch and label Load line marking on the starboard side of the merchant vessel ? (10 marks)

18.

- (a) Draw a side view of a ship and mark the following (5 marks)

- i. Forecastle deck
- ii. Quarter deck
- iii. Cargo holds
- iv. Double bottom tanks
- v. Bow or Stem

(b) Draw a cross-section of a ship and mark following (5 marks)

- i. Hatch cover
- ii. Main deck or upper deck or weather deck
- iii. Shell Plating
- iv. Tween deck
- v. Duct keel

19.

a. Draw a neat diagram of a tank showing sounding pipes and air pipes.

b. Explain purpose of sounding pipe, Striker plate and Air pipes.

(5x2=10 marks)

20.

a. Describe equipment and tools found in Engine room workshop

b. Describe the purpose of a double bottom tank

(5x2=10 marks)

21. Sketch and label mid ship section of a Bulk Carrier

(10 marks)

22. Briefly describe about shell expansion plan and its use?

(10 marks)

