

Indian Maritime University
(A Central University, Govt of India)
End Semester Examinations – December 2023
Programme Name: B Sc (NS)
Semester: I
Subject Code: UG21T5105
Subject Name: General Ship Knowledge

Date: 28.12.2023

Max Marks: 70

Duration: 03 Hrs

Pass Marks: 35

General Instructions

- (i) All Sections (A, B & C) are to be attempted.
- (ii) Options, if any, are specified in the respective section.

Section A

Ten MCQs of 01 Mark each – Choose ONE correct answer as applicable.
(10 Marks)

1. Crude oil in bulk is carried by
 - A. A RORO ship
 - B. A Bulk Carrier
 - C. A Passenger ship
 - D. A Tanker
2. A horizontal line drawn at the top of the keel plate is called
 - A. Moulded line
 - B. Base line
 - C. IMO line
 - D. Lloyd's line
3. How is the Winter load line is placed with respect to the Summer line
 - A. at the same level
 - B. 1/48th of Summer draft above Summer line
 - C. 1/48th of Summer draft below Summer line
 - D. 230 mm below Summer line
4. The Anchor is connected to the anchor chain by
 - A. Crown shackle
 - B. Shank
 - C. Flukes
 - D. Crown pin
5. The purpose of the Fuel oil Service tank is
 - A. Supply fuel to the fuel pump
 - B. Supply fuel to the settling tank

- C. Supply fuel to the steering gear
 - D. Supply fuel to the Purifier
6. When two plates are welded together in same strake of hull plating, it is called
- A) Brackets C) Seam
 - B) Butt D) Stiffener
7. The Strake where bilge keel is fitted
- A. Garboard strake
 - B. Keel strake
 - C. Bilge strake
 - D. Sheer strake
8. The purpose of Double bottom tanks is
- A. to increase GM by adding Ballast
 - B. to provide structural strength as girder and beam
 - C. to store Freshwater
 - D. All of the Options
9. By using sounding tape,
- A. we measure the depth of the liquid in the compartment
 - B. we measure the volume of the liquid in the compartment
 - C. height of the tank
 - D. None of the options
10. The stem is the
- A) After most part of the vessel C) The end of the Mast
 - B) The foremost part of the vessel D) None of the above

Section B

(2 marks x 5 = 10 Marks)

- 11. What is Poop deck? What are some of the structural features and equipments found on the poop deck?
- 12. State the purpose of the Collision bulkhead?
- 13. State the purpose of Air pipes?
- 14. What is the purpose of "Hatch covers"?
- 15. What is Bilge well? Name some areas on deck where these are found?

Section C

Answer any 5 out of 7 Questions.

- 16. (a) Describe special design features of a crude oil tanker (5 marks)

(b) Give 2 examples of cargoes loaded on the following ships (5 marks)

1. General cargo ship
2. RO-RO ship
3. Petroleum product tanker
4. LPG tanker
5. Refer ship

17. (a) Draw a neat diagram showing Deck line, Plimsoll line and load line markings T, S, W, TF, and F (5 marks)

(b) List equipment and tools found in the Engine room workshop. (5 marks)

18. (a) Draw a side view of a ship and mark following (5 marks)

1. Length overall (LOA)
2. Length between perpendiculars(LBP)
3. Depth of ship
4. Amidships
5. Air draft

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

1. Freeboard
2. Camber of deck
3. Rise of floor
4. Tumblehome
5. Bilge radius

19. With simple sketches explain the bilge keel and its advantages?

(10 marks)

20. (a) Explain the numbering system of frames and shell plating (5 marks)

(b) What are peak tanks and what are their functions? (5 marks)

21. Compare Air pipes and Ventilators (10 marks)

22. Draw a neat diagram of a tank showing Sounding pipes and air pipes. Also explain purpose of Sounding pipe, Striker plate and Air pipes (10 marks)

