

Indian Maritime University
(A Central University, Govt of India)
End Semester Examinations – June 2026

Programme Name: B Sc (NS)

Semester: VI

Subject Code: UG21T5603

Subject Name: Ship Maintenance and Emergencies

Date: 05.06.2026

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 respective section.

Section A

(Ten MCQs/Fill in the Blanks of 01 Mark each–Choose the correct answer as applicable)

1. Sa2 standard of steel surface preparation needs _____
a) Only fresh water wash b) Thorough blast cleaning
c) Scraping & Wire brushing d) Machine brushing
2. A crane wire requires lubrication for
a) Reducing wear and tear b) Extending life of crane wire
c) Reducing friction between strands d) All above answers are correct
3. A Planned maintenance system is mandatory as per _____
a) Polar Code b) ISPS Code c) ISM Code d) IBC Code
4. The Muster list shall specify details of the general emergency alarm and Public address system: TRUE / FALSE
5. ICCP anodes should be examined in the dry dock; ICCP stands for _____
6. Ship Sanitation Control Exemption Certificate is issued as per this regulation:

7. _____ Plan shows precise arrangements of keel blocks and supports to ensure proper positioning of the vessel in the Dry Dock
a) GA Plan b) Shell Expansion Plan c) Docking Plan d) Midship section
8. Expanding square search is most effective when the search area is large & the location of the search object is not known within close limits.:
TRUE / FALSE

9. This paint is used for Ballast Tanks & Chain Lockers:
a) Epoxy paint b) Vinyl paint c) Alkyd paint d) Chlorinated Rubber Paints
10. Standard search patterns for search and rescue operations are given in
a) IAMSAR Volume I b) IAMSAR Volume II
c) IAMSAR Volume III d) SMS Manual

Section B

Answer all five question (5 x 2 marks = 10 marks)

11. State briefly the purpose of a Binder, a pigment and a solvent.
12. What maintenance is done to anchor and its cable during a ship's dry docking?
13. What are the hazards involved in "Entering Enclosed Space"?
14. List out at least 4 methods available for testing weather tightness of hatch cover
15. Briefly explain "Anderson Turn" with the aid of a sketch

Section C

Answer any five question from Seven (5 x 10 marks = 50 marks)

16. a) What is "Corrosion"? What are the factors aiding corrosion on a merchant ship. (5 Marks)
b) Explain with a sketch the formation of a "galvanic cell" (5 Marks)
17. a) What are the advantages of "Planned maintenance" over "Breakdown maintenance" (5 Marks)
b) List out at least 10 contents of a "Fire Control Plan" (5 Marks)
18. a) List the various ships plans used during dry dock. (5 Marks)
b) Explain Ship Sanitation Certificate/Exemption Certificate and its purpose . (5 Marks)
19. a) Explain the purpose of "Emergency Drill" (5 Marks)
b) What are the contents of a "Muster List"? (5 Marks)
20. What are the points to be considered while preparing for a SRT (Safety Radio survey) of GMDSS Equipment's on board a ship? (10 Marks)
21. Describe the precautions & procedure for conducting a "Helicopter operations" in a ship. (10 Marks)
22. a) Appraise the Swedish standards of steel surface preparation such as St-2, St-3, Sa-2, Sa- 2.5, Sa- 3 (5 Marks)
b) State actions to be taken as per contingency plan for Fire on board (Engine Room) - (5 Marks)
