

Indian Maritime University
(A Central University, Govt of India)

Supplementary Examinations – March/April 2025

Programme Name: B Sc (NS)

Semester: V

Subject Code: UG21T5501

Subject Name: Coastal Navigation & Collision Prevention Regulations

Date: 02.04.2025

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.

- (iii) BA Chart 2675 'English Channel' or equivalent to be provided

Section A

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

1. Visibility of Masthead light of a Power driven Vessel < 12 miles
 - a) 5
 - b) 2
 - c) 3
 - d) 1

2. The difference between the height of a HW and the subsequent LW is called
 - (a) Height of Tide
 - (b) Range of Tide
 - (c) Duration of Tide
 - (d) Mean High Water

3. While taking a transit bearing it would be safest to consider
 - (a) A light house and a Beacon
 - (b) A light house and a Buoy
 - (c) A Beacon and a Buoy
 - (d) Two buoys

4. Data on paper charts required for a passage along with their editions is available in

- (a) NP 131
- (b) NP 133
- (c) NP 134
- (d) NP 136

5. You are heading due east (090°) and observe another vessel's red sidelight on your port beam. Which direction may the other vessel be heading?

- (a) South East (135°)
- (b) South West (225°)
- (c) North West (315°)
- (d) North East (045°)

6. The stern light shall be positioned such that it will show from dead astern to how many degrees on each side of the stern of the vessel?

- (a) 135°
- (b) 112.5°
- (c) 67.5°
- (d) 22.5°

7. Which of the below tactics is not used to ensure good execution of the plan

- (a) ETA at destination particularly when there is no advantage even if the ship comes early.
- (b) ETA at critical points to take advantage of favourable tidal streams
- (c) Traffic conditions at focal points
- (d) Master on the Bridge 10 to 12 hours every day

8. Soundings indicated on charts are measured from

- (a) Mean Low Water
- (b) Mean High Water
- (c) Lowest Astronomical Tide
- (d) Highest Astronomical Tide

9. Leeway is applied to

- (a) Course Steered
- (b) Course Made Good
- (c) Set
- (d) Drift

10. Spring tide and Neap tide occurs on a New Moon Day.

- a) True
- b) False

Section B

Five Questions of 02 Marks each

11. Which are the vessels exempted from the COLREGS as per Exemptions?

12. Define Mean High Water Springs

13. What is Monitoring in Passage Plan?
14. What information should be provided on every Waypoint?
15. Define Masthead light

Section C

Seven Questions of 10 Marks each of which any 05 questions to be answered.

16. At 1600 hours Start Point Light house bore $253^{\circ}(T)$ and Berry Head Light bore $325^{\circ}(T)$. With an Engine speed of 14 knots, the vessel then steered a course to pass Pte de Barfleur 10 miles off to starboard counteracting a current setting $220^{\circ}(T)$ at 3 knots. Find –

- (a) Vessels Position at 1600 hours (3 marks)
- (b) Speed Made Good (3 marks)
- (c) Course Steered (4 marks)

17. Find the height of tide at Bombay at 0300 hrs on the 01st March 1992 given the following data –

Bombay29/02	H.W 2238	3.7m
01/03	L.W 0453	1.9m
	H.W 1022	3.3m
	L.W 1610	1.2m

(10 marks)

18.

- (a) Describe how you will ascertain the Charts and Publications you will require to Plan a Voyage (5 marks)
- (b) List out any 5 publications you would refer before planning a passage (5 marks)

19. Define the following;

- a) Masthead Light (b) Side Light (c) Stern Light (d) Towing Light (e) Alround Light (f) Flashing Light

(10 marks)

20.

- (a) Describe the lights and Shapes carried a vessel Not under Command
- (b) Describe the lights and Shapes carried a vessel Constrained by her draught
- (c) Describe the sound signal sounded by a vessel aground whose length is more than 100 meters in or near an area of restricted visibility (3+3+4 = 10 marks)

21. List out 10 items that you would mark on the chart at the planning stage

(10 marks)

22.

- (a) Write a short note on Emergency Wreck marking Buoy (5 marks)
- (b) Describe in your own words how you will be able to calculate the vessels position using a Transferred Position Circle (5 marks)

T.M.M.