

Indian Maritime University
(A Central University, Govt of India)
End Semester Examinations – June 2023
Programme Name: B Sc (NS) : Semester: V
Subject Code: UG21T4501
Subject Name: Coastal Navigation & Collision Prevention Regulations

Date: 06.06.2023

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 respective section.
- (iii) Tidal graph for Admiralty Tide Table 1994 Vol II to be provided by the Exam centre for Chart Work.
- (iv) Chart BA 5049/2675 to be provided by the Exam centre for Chart Work.

Section A

Fill in the Blanks/ Choose the most correct answer as applicable. **(1 X 10 Marks)**

1. Passage planning is practical planning-
 - a) from port of departure to port of arrival.
 - b) from berth of departure to port of arrival.
 - c) from berth of departure port to berth of arrival port.
 - d) as per the requirement of the ship owner.
2. Spring tide and Neap tide occurs on a New Moon Day.
 - a) True b) False
3. IALA Region B includes USA, Europe, Japan, Korea, Philippines.
 - a) True b) False
4. A ship steering a course 180° T and experiences wind from East causing a leeway of 3° . Her course made good will be-
 - a) 183° T
 - b) 177° T
5. The range of a light given on a recent chart is 32 nm, if the prevailing visibility is 10 miles, the light will be last seen at:
 - a) more than 32 nm
 - b) Less than 32 nm
 - c) at 32 nm
 - d) none of the above

6. In the Admiralty chart, height of Light house given is from-
- Chart datum
 - MHWS
 - LAT
 - None of the above
7. The term 'prolong blast' means a sound signal having a duration of about:
- 2 secs
 - 4 to 6 secs
8. A pilot vessel on pilotage duty in restricted visibility may in addition to the prescribed signals, sound an identity signal consisting:
- four short blasts
 - one prolonged blast followed by two short blast
 - three short blasts
9. As per rule 18, a sailing vessel underway shall keep out of the way of:
- A vessel not under command, a vessel restricted in ability to manoeuvre and a vessel engaged in fishing.
 - A vessel not under command and a vessel restricted in ability to manoeuvre.
 - A vessel not under command and a vessel engaged in fishing.
 - A vessel engaged in fishing and a vessel constrained by her draft
10. Every vessel which is _____ of the way of another vessel shall, as far as possible, _____ to keep well clear.

SECTION B

(All questions to be answered. Each of 2 marks)

11. How a navigator uses method of running fix to plot the ship's position?
12. How Luminous range diagram is used in position fixing?
13. Define Set and Drift of current.
14. What additional shapes and lights a vessel constrained by her draught display?
15. How will you determine if risk of collision exists when you sight another vessel on your starboard bow?

SECTION C

(Answer all 5 Questions)

16. Find the heights and times of High Water and Low Water at the Secondary Port on the 17th of December given the following data -

Part I:	17	0330	0.7
		0937	1.4
		1441	1.0
		2105	2.1

Part II:

PLACE	TIME DIFFERENCE		HEIGHT DIFFERENCE			
	High Water	Low Water	MHHW	MLHW	MHLW	MLLW
Standard			1.9	1.2	0.8	0.4
Secondary	-0707	-0636	-0.8	-0.5	-0.1	-0.1

Seasonal Change for Standard Port = (+0.1)

Seasonal Change for Secondary Port = NIL

(10 marks)

17.

Explain in detail the different tasks to complete in the Planning Stage of Passage Planning

(10 marks)

18.

Differentiate between IALA Region 'A' and Region 'B' with respect to Port lateral marks, Starboard lateral Marks, Preferred Channel to Port and Preferred Channel to Starboard

(10 marks)

19. At 1930 hours, Casquets light was seen in transit with Le Hanois Light at a compass bearing of 218 (C). Find the Compass Error. At the same time Cap De la Hague light bore 163 (C). If the vessel continued to steer a course of 079(C) at 11 knots, find her position at 2130 hours if the current was setting 165(T) at 2.5 knots throughout. Find the Course Made Good and the Speed made Good.

(10 marks)

20.

You are on a power-driven vessel transiting a traffic separation scheme in the correct lane in good visibility. You see on the horizon for the first time another power-driven vessel about 3 points on the starboard bow, crossing. Sequentially state your actions and justify them with suitable rules from the Collision Prevention Regulations

(10 marks)

