

**INDIAN MARITIME UNIVERSITY**  
(A Central University Government of India)  
END SEMESTER EXAMINATIONS-June/July 2019  
**B.Sc Nautical Science**  
**Semester-V**  
**Coastal Navigation & Collision Prevention Regulations**  
**(UG21T3501)**

**Date: 08-07-2019**

**Maximum Marks: 70**

**Duration: 3 hrs.**

**Pass Marks: 35**

**Note: Question No.1 and Question No.7 is compulsory.**

**Answer any 6 questions from the remaining 8 questions.**

**Use of Chart No.5409(English Channel)**

**Non Programmable Scientific Calculator is permitted.**

**Selected Pages of ATT1 to be provided if required**

**Part A (Coastal Navigation)**

**(Question No. 1 is compulsory. Solve any 4 question from remaining 5 questions.)**

Q.1 Find out the height of tide at 0900 h local time, at Dover on 3rd March, '92. (10 marks)

Time (HRS)	Ht. of tide (Mts)
0543	1.1
1041	6.0
1800	1.2
2252	6.3

Q.2 Define the following: Dead Reckoning, Estimated Position and Fix.  
A vessel is in position with Start Point Lt. Ho. bearing  $340^{\circ}$  (T), distance 10 miles off. Find the ship's position in terms of Latitude and Longitude. (10 marks)

Q.3 Your vessel is in region 'B' sailing on a course  $180^{\circ}$ , you see a buoy With VQ or Q FL white light, right ahead. What will be your course of action and why? Describe the characteristics of a emergency wreck marking buoy (10 marks)

Q.4 From a posn  $50^{\circ} 30'N$   $00^{\circ} 00'$  at 1800 h, set a course to reach a point 10 M due SE of Bill of Portland light, if current was estimated to set NE at 2.5 Kts and engine speed is 13 kts, find following: Course to make good, Course to steer to counter act the current, expected speed that the ship will make good, time and bearing passing St. Catherine light when abeam. (10 marks)

Q.5 At 1920 hrs a vessel in DR  $49^{\circ} 12' N$ ,  $04^{\circ} 12' W$  took a star sight which gave the observed longitude to be  $04^{\circ} 04' W$  and Azimuth  $282^{\circ}$  (T). Find the safe true courses to steer so as to reach Deep

Sea Pilot Stn off Berry Head Pilot Stn. Find distance to steam on first course, assuming the visibility is poor and radars not reliable.

(10 marks)

Q.6 (a) Write in brief your understanding regarding passage planning.

(5 marks)

(b) Explain the four stages of passage planning.

(5 marks)

### **Part B**

#### **(Collision Prevention Regulations)**

**(Question No. 7 is compulsory. Solve any 1 question from remaining 2 questions.)**

Q.7

(2 x 5 =10 marks)

(a) Define which vessel can be termed as a vessel not under command?

(b) Define what do you understand by the word 'Under way'?

(c) State one simple method to determine if a risk of collision exists?

(d) State which three vessels shall keep out of way of a vessel not under command ?

(e) State the minimum visibility requirements of mast head lights, side lights and stern lights of a power driven vessel of length less than 50 mtrs but more than 20 mtrs?

Q.8 Write down distress signals as given in Annexe IV of IRPCS 72.

(10 marks)

Q.9 Quote Rule No. 2

(10 marks)