# U.S.C.G. Merchant Marine Exam

## Apprentice Mate Steersman

## Q421 Chart 12354TR

## (Sample Examination)

**Choose the best answer to the following Multiple-Choice Questions.**

1. The Light List indicates that a light has a nominal range of 10 miles and is 11 feet high. If the visibility is 5 miles and your height of eye is 20 feet, at what approximate distance will you sight the light?

   A. 6.3 miles
   B. 7.4 miles
   C. 8.4 miles
   D. 9.0 miles

   Correct answer: A

2. The following questions are to be answered using Chart 12354TR, Long Island Sound - Eastern Part, and supporting publications.

   Your vessel is enroute to New Haven, CT.
   You are proceeding at a reduced speed of 9.8 knots on a course of 243°T.
   Your height of eye is 45 feet and your vessel's deep draft is 33 feet.

   At 0930 you obtain a position from the following information: Race Rock Light bears 110°T at a range of 1.4 miles, and Goshen Point bears 330°T at a range of 3.3 miles. What are your present latitude and longitude?

   A. 41°16.0'N, 72°09.5'W
   B. 41°14.6'N, 72°03.0'W
   C. 41°17.4'N, 72°06.0'W
   D. 41°15.1'N, 72°04.6'W

   Correct answer: D

3. At 1000 buoy "PI" is abeam to starboard a distance of 0.5 mile. From this position, with a set of 295° and a drift of 1.6 knots, what course must you steer to arrive at a point with Buoy "TE" one mile abeam to starboard?

   A. 251°T
   B. 253°T
   C. 247°T
   D. 249°T

   Correct answer: C

4. At 1130, Horton Point Light bears 172°T at a range of 3.45nm the fathometer reads 81 ft. Which of the following describes your position?

   A. three miles southeast of Six Mile Reef Buoy "8A"
   B. 41°08.5'N, 72°27.3'W
   C. north of your intended track line
   D. 41°09.4'N, 72°22.6'W

   Correct answer: B

5. At 1155 your vessel's position is LAT 41°09.0'N, LONG 72°34.4'W. If you make good a course of 282°T and a speed of 10.0 knots, when will you arrive at New Haven Harbor Lighted Whistle Buoy "NH"?

   A. 1320
   B. 1325
   C. 1315
   D. 1330

   Correct answer: B

6. From your 1155 position, you steer a course of 282°T at a speed of 9.5 knots. You obtain the following bearings: 1205: Falkner Island Light bears 318°T 1225: Falkner Island Light bears 355°T.

   Which of the following describes your 1225 running fix?

   A. Falkner Island Light is bearing 355°T at 2.9nm.
   B. ahead of the 1225 DR position
   C. indicates a speed made good less than 9.5 knots
   D. Falkner Island Light is bearing 355°T at 3.3nm.

   Correct answer: C

7. At 1245 the GPS shows your position to be LAT 41°10.3'N, LONG 72°44.2'W. You are steering a course of 284°T at an engine speed of 13.0 knots. At what time would you expect the New Haven Harbor Outer Range to be in line if you have a current setting 112°T at 1.2 knots?

   A. 1343
   B. 1328
   C. 1323
   D. 1318

   Correct answer: C

8. At the time of your 1245 position, which statement is TRUE?

   A. Your fathometer should indicate a reading of approximately 47 feet.
   B. You must follow the International Rules of the Road.
   C. You are in a danger area.
   D. Bradford Reef is 5.7 miles on the starboard bow.

   Correct answer: A

9. After departing the New Haven terminals, your 1800 position puts the New Haven Harbor Lighted Whistle Buoy "NH" bearing 130°T at a range of 0.2 mile. From this position you set a course to leave Stratford Shoal Middle Ground Light 1.0 mile off your starboard beam. Your speed is 12.5 knots. At 1845 you determine your position to be LAT 41°05.5'N, LONG 73°03.1'W. What were the set and drift of the current?

   A. 294°T at 0.5 knot
   B. 114°T at 0.8 knot
   C. 294°T at 0.8 knot
   D. 114°T at 0.5 knot

   Correct answer: C

10. From your 1845 position, you desire to leave Stratford Shoal Middle Ground Light 1.0 mile off your starboard beam at 1900. Which course and speed would you order if you allow for a 2.0 knot current with a set of 180°T?

   A. 205°T at 9.2 knots
   B. 208°T at 11.4 knots
   C. 215°T at 9.2 knots
   D. 225°T at 11.5 knots

   Correct answer: C