

U.S.C.G. Merchant Marine Exam

Master of Unlimited Tonnage

Q305 Chart 12221TR

(Sample Examination)

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

1. The Light List shows that a navigational light has a nominal range of 22 miles and a height above water of 48 feet (14.6 meters). Your height of eye is 35 feet (10.7 meters) and the visibility is 20.0 miles. At what approximate range will you first sight the light?
- A. 10.5 nm
 - B. 13.2 nm
 - C. 14.7 nm
 - D. 32.0 nm

Correct answer: C

2. The following questions are to be answered using Chart 12221TR, Chesapeake Bay Entrance, and supporting publications.

You are southbound along the coast on a course of 180°T and the engine speed is 14 knots.

Your draft is 16 feet.

Gyro error is 2°W .

Use 10°W variation where required

At 2000 Hog Island Lighted Bell Buoy "12" bears 199°T and Buoy "GM" bears 249°T .

What is your position?

- A. $37^{\circ}35.0'\text{N}$, $75^{\circ}32.2'\text{W}$
- B. $37^{\circ}23.5'\text{N}$, $75^{\circ}32.2'\text{W}$
- C. $37^{\circ}03.5'\text{N}$, $75^{\circ}02.2'\text{W}$
- D. $37^{\circ}03.5'\text{N}$, $75^{\circ}32.2'\text{W}$

Correct answer: B

3. From your 2000 position you change course to 206°T . What time would you expect to be abeam of Hog Island Buoy "12"?
- A. 2031
 - B. 2026
 - C. 2021
 - D. 2040

Correct answer: B

4. You should expect to pass how far off buoy "12"?
- A. 0.8 mile
 - B. 2.1 miles
 - C. 1.7 miles
 - D. 1.2 miles

Correct answer: A

5. At 2030 you take the following bearings:

Sand Shoal Inlet South Light - 275°T
Cape Charles Light - 235°T

What is the set and drift from 2000 to 2030?

- A. 088° at 0.7 knot
- B. 268° at 0.7 knot
- C. 088° at 1.4 knots
- D. 268° at 1.4 knots

Correct answer: D

6. From your 2030 fix you change course to 195°T , and leave the engine speed at 14 knots.
At 2045, your position is Lat $37^{\circ}13.50'\text{N}$ Long $075^{\circ}38.05'\text{W}$

Which statement is TRUE?

- A. Cape Charles Light bears 050° relative.
- B. Your fathometer reading is approximately 40 fathoms.
- C. Chesapeake Light bears 190° relative.
- D. Your vessel is located in a restricted area.

Correct answer: A

7. You continue to steer 195°T . You pass Cape Charles Lighted Bell Buoy "14", 0.9 miles abeam to starboard at 2111. What is your speed made good from 2045 to 2111?

- A. 13.7 knots
- B. 14.8 knots
- C. 14.1 knots
- D. 14.5 knots

Correct answer: B

8. What is your course made good from 2045 to 2111?

- A. 187°T
- B. 190°T
- C. 193°T
- D. 196°T

Correct answer: C

9. If you are going to head directly for Chesapeake Light from your 2111 fix, what is the course to make good?

- A. 199°T
- B. 190°T
- C. 196°T
- D. 193°T

Correct answer: B

10. At 2200, you alter course to 204°T, at 14 knots. You expect a current on this leg of the trip, setting 325° at 1.5 knots. Which course should you steer per gyrocompass to make good the true course?

- A. 201°pgc
- B. 194°pgc
- C. 184°pgc
- D. 190°pgc

Correct answer: A