

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

Master Less than 500-1600 Gross Registered Tons

Q125 Chart 12221TR

(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

*If choice A is selected set score to 1.*

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

You are on an oceanographic research vessel equipped with standard navigational equipment.  
The gyro error is 2°W.  
The maximum draft is 13 feet.  
Use 10°W variation where required.

***DEVIATION TABLE***

| <b><u>Magnetic Heading</u></b> | <b><u>Deviation</u></b> |
|--------------------------------|-------------------------|
| 060°                           | 1°W                     |
| 075°                           | 0°                      |
| 090°                           | 1°E                     |

Chesapeake Channel is temporarily closed to traffic. At 2215 you anchor on the following bearings:  
Wolf Trap Light 358°pgc  
Light "HH" 301°pgc  
New Point Comfort Spit Light "2" 263°pgc

What is your 2215 position?

- (A) LAT 37°18.0'N, LONG 76°11.2'W
- (B) LAT 37°18.3'N, LONG 76°10.9'W
- (C) LAT 37°18.2'N, LONG 76°11.2'W
- (D) LAT 37°18.1'N, LONG 76°10.8'W

*If choice B is selected set score to 1.*

3. While you are at anchor, what will serve as a positive warning that you are drifting towards the wrecks located to the NW and SW of your 2215 position?
- (A) The bearing of Wolf Trap Light changing to the left
  - (B) Increasing soundings
  - (C) A constant bearing on New Point Comfort Light.
  - (D) The bearing of Wolf Trap Light changing to the right

*If choice D is selected set score to 1.*

4. What course per gyrocompass would you need to steer from the anchorage to York Spit Channel buoy "29"?
- (A) 181° pgc
  - (B) 172° pgc
  - (C) 175° pgc
  - (D) 178° pgc

*If choice B is selected set score to 1.*

5. When you get underway, you will take the most direct route to buoy "CBJ", while remaining west of York Spit Channel. You will be turning for 9.7 knots and estimate an average ebb of 0.3 knot during the transit. How long will it take to steam from the anchor position to buoy "CBJ"?
- (A) 2h 33m
  - (B) 2h 42m
  - (C) 2h 51m
  - (D) 2h 16m

*If choice A is selected set score to 1.*

6. Which of the following describes the area west of your anchorage bounded by the buoys "C51" to "C47A" to "M6" to "M14"?
- (A) an anchorage for ammunition barges
  - (B) a fish trap area
  - (C) restricted to oil and mineral exploration
  - (D) a training area for naval small craft

*If choice B is selected set score to 1.*

7. As you transit the Chesapeake Bay Bridge and Tunnel, you take a gyro bearing of trestle C when it is in line. The gyro bearing was 050°. At that time, the helmsman noted that he was heading 139°pgc and 146° per standard magnetic compass. What is the deviation?
- (A) 2°E
  - (B) 4°W
  - (C) 0°
  - (D) 2°W

*If choice A is selected set score to 1.*

8. At 1042 you take the following round of bearings: Cape Henry Light 259°T Chesapeake Light 101°T Cape Charles Light 006°T From this position, you set course 070°T at a speed of 9.5 knots. What is the course per standard magnetic compass?

- (A) 079.5°psc
- (B) 069.5°psc
- (C) 060.5°psc
- (D) 080.5°psc

*If choice A is selected set score to 1.*

9. At 1126 you take the following set of bearings:  
Chesapeake Light bears 143°T  
Cape Henry Light bears 254°T

What was the current encountered since your 1042 fix?

- (A) Set 272°, Drift 0.6 knot
- (B) Set 272°, Drift 0.8 knot
- (C) Set 092°, Drift 0.6 knot
- (D) Set 092°, Drift 0.8 knot

*If choice D is selected set score to 1.*

10. You continue on course from your 1126 fix.  
At 1131 Cape Charles Light bears 322°T.  
At 1135 you change course to 000°T.  
At 1149 Cape Henry Light bears 247°T.  
Which statement concerning your 1149 running fix is TRUE?

- (A) Chesapeake Light is due south of you.
- (B) You are north of Smith Island Shoal.
- (C) You are in a danger area.
- (D) Your fathometer reads 47 feet.

*If choice C is selected set score to 1.*