

U.S.C.G. Merchant Marine Exam
Mate Offshore Supply Vessels
Q213 Chart 12221TR
(Sample Examination)

Choose the best answer to the following Multiple Choice Questions.

1. The following questions are based on Chart 12221TR, Chesapeake Bay Entrance, and the supporting publications.

Your vessel has a draft of 8.0 feet (2.4 meters)
Gyro error is 2°W
Variation is 10°W

"Per standard magnetic compass" is abbreviated "psc"
"Per gyrocompass" is abbreviated "pgc"

DEVIATION TABLE

<u>Magnetic Heading</u>	<u>Deviation</u>
000°	0°
030°	1°W
060°	2°W
090°	4°W
120°	2°W
150°	1°W
180°	1°E
210°	2°E
240°	3°E
270°	3°E
300°	2°E
330°	1°E

At 1730 your position is LAT 37°13.9'N, LONG 76°26.4'W.
You are steering course 088°psc at an engine speed of 8.0 knots.

What is your distance off Tue Marshes Light at 1730?

- (A) 3.2 miles
- (B) 2.8 miles
- (C) 3.0 miles
- (D) 2.6 miles

If choice D is selected set score to 1.

2. What is the maximum allowable speed of vessels underway up river from Tue Marshes Light?

- (A) 10 knots
- (B) 6 knots
- (C) 8 knots
- (D) 12 knots

If choice D is selected set score to 1.

3. At 1750, your position is LAT $37^{\circ}14.5'N$, LONG $76^{\circ}22.9'W$. What was the course made good between 1730 and 1750?
- (A) $081^{\circ}T$
 - (B) $075^{\circ}T$
 - (C) $072^{\circ}T$
 - (D) $078^{\circ}T$

If choice D is selected set score to 1.

4. At 1800, Tue Marshes Light bears $264.5^{\circ}pgc$, York Spit Swash Channel Light "3" bears $007^{\circ}pgc$. What is your position?
- (A) LAT $37^{\circ}15.2'N$, LONG $76^{\circ}20.3'W$
 - (B) LAT $37^{\circ}15.5'N$, LONG $76^{\circ}19.8'W$
 - (C) LAT $37^{\circ}15.0'N$, LONG $76^{\circ}20.4'W$
 - (D) LAT $37^{\circ}14.5'N$, LONG $76^{\circ}20.1'W$

If choice D is selected set score to 1.

5. What course should you steer per standard magnetic compass in order to navigate down the center of York River Entrance Channel (ignore set and drift)?
- (A) $141^{\circ}psc$
 - (B) $149^{\circ}psc$
 - (C) $139^{\circ}psc$
 - (D) $145^{\circ}psc$

If choice A is selected set score to 1.

6. You have just passed York River Entrance Channel Lighted Buoys "13" and "14". The chart shows a light approximately 1.0 mile off your port beam with a light characteristic "FI 6 sec". What is the name of this light?
- (A) York Spit Light
 - (B) New Point Comfort Shoal Light
 - (C) York River Entrance Channel Light "1"
 - (D) Mobjack Bay Entrance Light

If choice A is selected set score to 1.

7. At 1930, your vessel is between York River Entrance Channel Lighted Buoys "1YR" and "2". From this position, you change course to 142° pgc at an engine speed of 8.0 knots.

At 2001, you obtain the following information:
Chesapeake Channel Tunnel North Light bearing- 131° pgc
Thimble Shoal Light bearing - 248° pgc

What were the set and drift between 1930 and 2001?

- (A) 307° at 0.5 knot
- (B) 127° at 1.1 knot
- (C) 127° at 0.5 knot
- (D) 307° at 1.1 knot

If choice C is selected set score to 1.

8. At 2015, your vessel is at the Chesapeake Bay Bridge and Tunnel midway between buoys "13" and "14". If the height of tide is -1 foot (-0.3 meters), what is the approximate depth of water?

- (A) 46 feet (13.9 meters)
- (B) 35 feet (10.6 meters)
- (C) 43 feet (13.1 meters)
- (D) 53 feet (15.5 meters)

If choice D is selected set score to 1.

9. If you steer 143° pgc from your 2015 position at an engine speed of 8.0 knots, at what time would you reach a point midway between buoys "11" and "12" (ignore set and drift)?

- (A) 2037
- (B) 2035
- (C) 2032
- (D) 2029

If choice D is selected set score to 1.

10. At 2015, you alter course to 154° pgc. What is the course per standard magnetic compass (psc)?

- (A) 162° psc
- (B) 152° psc
- (C) 142° psc
- (D) 157° psc

If choice A is selected set score to 1.

11. Which of the following concerning Thimble Shoal Channel is TRUE?

- (A) The channel is 14.5 miles in length.
- (B) Thimble Shoal Channel is in international waters.
- (C) A tow drawing 20 feet is excluded from the main channel.
- (D) Only deep-draft passenger ships and large naval vessels may use the main channel.

If choice C is selected set score to 1.

12. At 2118, you obtain the following bearings:

Cape Henry Light - 148°pgc
Cape Charles Light - 033°pgc
Thimble Shoal Light - 291°pgc

From this position, you proceed to Norfolk, VA, a distance of approximately 26.0 miles. To arrive at Norfolk by 0200 the next day, what is the speed to make good from your 2118 position to arrive at this time?

- (A) 5.5 knots
- (B) 6.5 knots
- (C) 6.0 knots
- (D) 5.0 knots

If choice A is selected set score to 1.

13. What is the latitude and longitude of your 2118 position?

- (A) LAT 36°58.0'N, LONG 76°02.4'W
- (B) LAT 36°57.0'N, LONG 76°01.5'W
- (C) LAT 36°57.4'N, LONG 76°01.9'W
- (D) LAT 36°56.6'N, LONG 76°01.0'W

If choice C is selected set score to 1.

14. From your 2118 position, you are steering 288°T at an engine speed of 7.0 knots. If visibility is suddenly reduced to 2 miles, at what time can you expect Old Point Comfort Light to become visible again?

- (A) 2220
- (B) 2232
- (C) 2155
- (D) The light is visible at 2118.

If choice B is selected set score to 1.

15. If the Old Point Comfort main light was inoperative what emergency light would be shown?

- (A) Alternating red and white
- (B) Light of reduced intensity
- (C) Strobe light
- (D) Flashing yellow

If choice B is selected set score to 1.