

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

### Master Less than 100 Gross Registered Tons

Q163 Chart 12221TR

(Sample Examination)

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

Each question is completely independent of any other question on this exam.

The following information is applicable to all questions.

The following questions should be answered using chart 12221TR, Chesapeake Bay, and the supporting publications.

"Per standard magnetic compass" is abbreviated "psc"

"Per gyrocompass" is abbreviated "pgc"

Variation is 9°W

**DEVIATION TABLE**

Magnetic Heading	Deviation
000°	2.0°E
030°	3.0°E
060°	4.0°E
090°	2.0°E
120°	1.0°E
150°	1.0°W
180°	2.0°W
210°	3.5°W
240°	3.0°W
270°	1.5°W
300°	0.0°
330°	1.5°E

1. At 1614 your GPS position is LAT 37°01.6'N, LONG 75°31.7'W. At 1703 your position is LAT 36°57.0'N, LONG 75°41.0'W. What was the course made good between the fixes?

- A. 238°T
- B. 250°T
- C. 242°T
- D. 247°T

Correct answer: A

2. Your position is LAT 37°00.0'N, LONG 75°30.0'W. What is the course to steer per standard magnetic compass to arrive at LAT 36°59.0'N, LONG 75°48.5'W, if you are turning for 7.8 knots, the current is 139°T at 1.3 knots, and a northwesterly wind is causing 3° of leeway?

- A. 290.0°psc
- B. 283.5°psc
- C. 280.5°psc
- D. 286.0°psc

Correct answer: D

3. While in the Back River, you sight the two tanks along the Northwest Branch (vicinity LAT 37°05.6'N, LONG 76°22.0'W) in line bearing 277° per standard magnetic compass. If your vessel is heading 243°psc, what is TRUE?
- A. The deviation table is incorrect.
  - B. The compass error is 12°W.
  - C. There is no deviation.
  - D. The deviation is 3°E for bearings of 277°psc.

Correct answer: B

4. Your 1152 position is LAT 37°23.9'N, LONG 76°05.5'W. You are turning for 10.3 knots. What is your ETA at Trestle C of the Chesapeake Bay Bridge and Tunnel if you follow York Spit Channel?
- A. 1339
  - B. 1342
  - C. 1349
  - D. 1404

Correct answer: D

5. The soundings on the chart are based on the depth of water available at \_\_\_\_\_.
- A. mean low water
  - B. mean high water springs
  - C. mean lower low water
  - D. mean high water

Correct answer: C

6. What correction should be applied to the charted depths of the Poquoson River at York Point at the PM low water on 18 December 1983?
- A. -0.1 feet
  - B. No correction is necessary
  - C. +1.9 feet
  - D. -0.4 feet

Correct answer: D

7. What is the course per standard magnetic compass from Chesapeake Light to North Chesapeake Entrance Lighted Whistle Buoy NCA?
- A. 321°psc
  - B. 316°psc
  - C. 326°psc
  - D. 323°psc

Correct answer: A

8. What do the broken magenta lines (long and short dashes) in and around Mobjack Bay (LAT 37°20'N, LONG 76°22'W) indicate?
- A. fish trap areas
  - B. gunnery exercise areas
  - C. grounds for dredge spoil
  - D. amphibious training areas

Correct answer: A

9. At 0817 your GPS indicates a position of LAT 37°01.6'N, LONG 75°31.7'W. You are on course 182° per standard magnetic compass at a speed of 9.2 knots. At 0913 your GPS indicates your position at LAT 36°52.3'N, LONG 75°30.8'W. What were the set and drift?
- A. 298°T at 0.7 knot
  - B. 121°T at 0.8 knot
  - C. 139°T at 1.1 knots
  - D. 219°T at 1.1 knots

Correct answer: D

10. You are on course 262° per standard magnetic compass when you take the following bearings:

Cape Henry Light 252°psc  
Cape Charles Light 003°psc  
Chesapeake Light 131°psc

What is your position?

- A. LAT 36°58.6'N, LONG 75°52.2'W
- B. LAT 36°58.1'N, LONG 75°52.6'W
- C. LAT 36°59.0'N, LONG 75°52.9'W
- D. LAT 36°57.9'N, LONG 75°53.2'W

Correct answer: C