National Maritime Center

Keep 'em Safe, Keep 'em Sailing



U.S.C.G. Merchant Marine Exam Master or Mate Less than 200 Gross Registered Tons Q153 Chart 12221TR

(Sample Examination)

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

The following questions are to be answered by plotting on chart 12221 TR, Chesapeake Bay, and using the supporting publications.

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

The following information is applicable to all questions.

(The abbreviation "psc" stands for "per standard magnetic compass".)

VARIATION IS 9° W **DEVIATION TABLE** HDG.MAG. DEVIATION 2.0°E 000° 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 3.0°W 240° 270° 1.5°W 300° 0.0° 330° 1.5°E

- 1. Local magnetic disturbances of up to how many degrees have been noted from Cape Henry to Currituck Beach Light?
 - A. 2 degrees
 - B. 6 degrees
 - C. 17 degrees
 - D. 11 degrees

Correct answer: B

- 2. You sight Wolf Trap Light in line with New Point Comfort Spit Light "2" bearing 040° per standard magnetic compass. You are on course 319° per standard magnetic compass. Based on this information which of the following is true?
 - A. you know the deviation table is incorrect
 - B. you should suspect the compass may be affected by a local magnetic disturbance
 - C. you should apply 3°Easterly deviation to the bearing
 - D. you know the compass error is 8°W

Correct answer: D

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- 3. At 0919 you are in Chesapeake Channel between Trestle B and Trestle C of the Chesapeake Bay Bridge and Tunnel. What is your ETA between York River Entrance Channel Buoys "17" and "18" if you are making 11.3 knots?
 - A. 1034
 - B. 1049
 - C. 1044
 - D. 1039

Correct answer: C

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

Correct answer: B

- 5. What is the distance from Norfolk to Philadelphia for a deep draft vessel via the Chesapeake Bay and C and D Canal?
 - A. 209 miles
 - B. 245 miles
 - C. 286 miles
 - D. 302 miles

Correct answer: B

- 6. You are navigating 1 mile north of Cape Henry Lighthouse at the southern entrance to Chesapeake Bay. You observe that this area is bounded on the chart by magenta bands. This indicates a(n)
 - A. pilotage area
 - B. danger zone
 - C. fish trap area
 - D. explosive anchorage

Correct answer: A

- 7. 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. 242°T
 - B. 238°T
 - C. 247°T
 - D. 250°T

Correct answer: B

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- 8. At 1712 your GPS indicates a position of LAT 36°54.8'N, LONG 75°39.8'W. You are on course 319° per standard magnetic compass at a speed of 9.9 knots. At 1800 your GPS indicates your position at LAT 37°00.0'N, LONG 75°45.8'W. What were the set and drift?
 - A. 087°T at 1.2 knots
 - B. 093°T at 0.8 knot
 - C. 267°T at 1.3 knots
 - D. 262°T at 0.9 knot

Correct answer: A

- 9. What is the true heading to steer outbound in Thimble Shoal Channel if your engines are turning for 8.0 knots, the current is 050°T at 1.0 knot and a northerly wind causes 3° of leeway?
 - A. 111°T
 - B. 098°T
 - C. 101°T
 - D. 104°T

Correct answer: A

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

Correct answer: B