

Demo PDF file. This file includes questions: 10 from 70. Full version of file looks the same as demo, but full version includes all questions. You may download file with all questions by link on bottom of this page

Q163 - Navigation Problems: Chart Plot

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?

- **238°T**
- 250°T
- 242°T
- 247°T

Note:

The course made good was 238T, determined by calculating the departure and difference in latitude between the two positions, then using these values to compute the angle of the track as S 58 W, which converts to 238 true.

2. What are the bottom characteristics of Nautilus Shoal (LAT 37°03'N, LONG 75°56'W)?

- Sand and shells
- Hard sand
- Mud and sand
- **Fine gray sand**

Note:

Choice D is correct; the charted bottom description for Nautilus Shoal at the specified coordinates is fine gray sand. This information is found by locating the latitude and longitude on the nautical chart and reading the corresponding bottom description, which in this case is fine gray sand, and is the only choice that matches.

3. Your GPS position is LAT 36°55.2'N, LONG 75°33.1'W. What is the course per standard magnetic compass to Rudee Inlet (LAT 36°49.8'N, LONG 75°58.0'W)?

- 246.0°psc
- **265.5°psc**
- 261.0°psc
- 254.5°psc

Note:

The correct compass course to Rudee Inlet is 265.5psc, calculated by adding the total westerly variation/deviation of 10.5 to the true course of 255T.

4. You are on course 027° per magnetic compass when you take the following bearings per magnetic compass: New Point Comfort Spit Light "2": 253° Horn Harbor Entrance Light HH: 282° Wolf Trap Light: 348° What is the position of the fix?

- **LAT 37°19.7'N, LONG 76°09.9'W**
- LAT 37°19.7'N, LONG 76°10.3'W
- LAT 37°19.4'N, LONG 76°09.8'W
- LAT 37°19.4'N, LONG 76°09.5'W

Note:

Choice A is correct; the intersection of lines of position plotted from the given compass bearings to charted objects is located at LAT 3719.7'N, LONG 7609.9'W.

5. What is the true heading to steer inbound in York River Entrance Channel if your engines are turning for 9.8 knots, the current is 220°T at 1.2 knots, and a northeasterly wind causes 3° of leeway?

- 298°T
- 315°T
- **319°T**
- 301°T

Note:

To maintain the correct track, steer a true heading of 319T, accounting for the current and wind's effect on the vessel's course.

6. Your 1426 position is LAT 37°10.9'N, LONG 75°29.6'W. You are turning for 9.3 knots. What is your ETA at Chesapeake Light?

- 1626
- **1633**
- 1616
- 1621

Note:

The ETA at Chesapeake Light is 1633, calculated by dividing the chart distance of 19.7 nautical miles by the speed of 9.3 knots, resulting in a steaming time of approximately 2 hours and 7 minutes, which when added to the starting time of 1426 yields 1633.

7. You sight Wolf Trap Light in line with New Point Comfort Spit Light "2" bearing 048° per standard magnetic compass. You are on course 203°psc. Based on this information which of the following is true?

- the compass error is 12°W
- **that the deviation table is in error**
- the deviation is 3°E for bearings of 048° per standard magnetic compass
- the deviation is 9°W

Note:

A range provides a known true bearing. Comparing this to the observed standard compass bearing and the deviation table value for the ship's heading reveals a discrepancy, indicating the deviation table is incorrect.

8. 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?

- 298°T at 0.7 knot
- 139°T at 1.1 knots
- 121°T at 0.8 knot
- **219°T at 1.1 knots**

Note:

The current's effect is determined by comparing the dead-reckoned position to the actual GPS fix. The difference reveals a set of 219T and a drift of 1.1 knots.

9. What is the horizontal clearance of the navigation opening of Trestle B of the Chesapeake Bay Bridge and Tunnel?

- 300 feet
- **70 feet**
- 21 feet
- 75 feet

Note:

The horizontal clearance of the navigation opening of Trestle B of the Chesapeake Bay Bridge and Tunnel is 70 feet. This value is published in nautical charts and the Coast Pilot and should be verified in current regulations before navigation.

10. What is the distance from Norfolk to Philadelphia for a deep draft vessel via the Chesapeake Bay and C and D Canal?

- 209 miles
- **245 miles**
- 286 miles
- 302 miles

Note:

The distance from Norfolk to Philadelphia via the Chesapeake Bay and C&D Canal is 245 miles, as specified in standard USCG exam references and distance tables. These exams require knowledge of published distances, not independent calculations, and other options do not correspond to the official route.
