

U.S.C.G. Merchant Marine Exam
Apprentice Mate Steersman
Q415 Navigation Problems - Near Coastal
(Sample Examination)

Choose the best answer to the following Multiple Choice Questions.

1. Your vessel will be docking at Chester, PA, during the evening of 22 April 1983. The chart shows a depth of 20 feet (6.1 meters) at the pier. What will be the depth of water available at 1856 EST (ZD +5)?
- (A) 22.4 feet (6.8 meters)
 - (B) 24.9 feet (7.6 meters)
 - (C) 25.7 feet (7.8 meters)
 - (D) 23.4 feet (7.2 meters)

If choice D is selected set score to 1.

2. Off Barnegat, NJ, with the wind coming out of the east, the wind-driven current will be flowing approximately _____.
- (A) 106°
 - (B) 254°
 - (C) 016°
 - (D) 286°

If choice B is selected set score to 1.

3. At 2237 ZT on 14 July you are in DR position LAT 33°57' N, LONG 150°32' W, when you observe an amplitude of Saturn. The planet is about one Sun's diameter above the visible horizon and bears 258.6°psc. The variation is 14°E. What is the deviation?
- (A) 1.0°E
 - (B) 1.0°W
 - (C) 2.0°W
 - (D) 0.0°

If choice C is selected set score to 1.

4. You are steering 202°T, and a light is picked up dead ahead at a distance of 14.6 miles at 2234. You change course to pass the light 5 miles off abeam to starboard. If you are making 21 knots, what is your ETA at the position 5 miles off the light?
- (A) 2310
 - (B) 2313
 - (C) 2316
 - (D) 2319

If choice B is selected set score to 1.

5. You are steering 163°T , and a light is picked up dead ahead at a distance of 11 miles at 0142. You change course to pass the light 2 miles off abeam to starboard. If you are making 13 knots, what is your ETA at the position 2 miles off the light?
- (A) 0226
 - (B) 0235
 - (C) 0232
 - (D) 0229

If choice C is selected set score to 1.

6. You are underway on course 215°T at 12 knots. The current is 000°T at 2.3 knots. What is the speed being made good?
- (A) 8.5 knots
 - (B) 10.2 knots
 - (C) 11.2 knots
 - (D) 10.9 knots

If choice B is selected set score to 1.

7. You are underway on course 160°T at 10 knots. The current is 210°T at 0.9 knots. What is the course made good?
- (A) 169°T
 - (B) 160°T
 - (C) 156°T
 - (D) 164°T

If choice D is selected set score to 1.

8. On September 9 your 2130 zone time (ZD +5) DR position is LAT $45^{\circ}08'\text{N}$, LONG $82^{\circ}38'\text{W}$. At that time, you observe Polaris bearing 000.5°pgc . The chronometer time of the observation is 02h 26m 09s, and the chronometer is 1m 43s slow. The variation is 8.7°W . What is the gyro error?
- (A) 9.4°W
 - (B) 1.2°E
 - (C) 0.7°E
 - (D) 0.8°W

If choice C is selected set score to 1.

9. You swung ship and compared the magnetic compass against the gyro compass to find deviation. Gyro error is 2°W. The variation is 8°W. Find the deviation on a magnetic compass heading of 210°.

HEADING PSC-PGC	HEADING PSC-PGC	HEADING PSC-PGC
358.5°-354°	122.5°-114°	239.5°-234°
030.5°-024°	152.0°-144°	269.0°-264°
061.5°-054°	181.0°-174°	298.0°-294°
092.0°-084°	210.0°-204°	327.5°-324°

- (A) 0.5°W
- (B) 0.5°E
- (C) 1.0°E
- (D) 0.0°

If choice D is selected set score to 1.

10. Your vessel is proceeding up a channel, and you see a pair of range lights that are in line dead ahead. The chart indicates that the direction of this pair of lights is 093°T, and the variation is 6°E. If the heading of your vessel at the time of the sighting is 097° per standard magnetic compass, what is the correct deviation?

- (A) 5°E
- (B) 10°E
- (C) 5°W
- (D) 10°W

If choice D is selected set score to 1.