

U.S.C.G. Merchant Marine Exam

Master Less than 100 Gross Registered Tons

Q163 Navigation Problems – Chart 13205TR

(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 13205 TR, Block Island Sound, and the supporting publications.

"Per standard magnetic compass" is abbreviated "psc"

"Per gyrocompass" is abbreviated "pgc"

Variation is 15°W

DEVIATION TABLE

Magnetic

<u>Heading</u>	<u>Deviation</u>
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. Determine the course per standard magnetic compass from the entrance to Quonochontaug Pond (LAT 41°19.8'N, LONG 71°43.2'W) to the entrance to Great Salt Pond on Block Island.
 - (A) 134.0°psc
 - (B) 159.0°psc
 - (C) 129.5°psc
 - (D) 156.0°psc

If choice B is selected set score to 1.

2. You are on course 073° per standard magnetic compass when you take the following bearings:

Watch Hill Point Light 037°psc

Montauk Point Light 179°psc

Race Rock Light 289°psc

What is your position?

- (A) LAT 41°13.8'N, LONG 71°54.3'W
- (B) LAT 41°13.6'N, LONG 71°54.6'W
- (C) LAT 41°13.7'N, LONG 71°53.8'W
- (D) LAT 41°13.7'N, LONG 71°54.9'W

If choice A is selected set score to 1.

3. At 2016 your GPS position is LAT 41°07.6'N, LONG 71°37.8'W. At 2128 your GPS position is LAT 41°00.4'N, LONG 71°29.4'W. What was the speed made good between the two positions?

- (A) 11.9 knots
- (B) 10.2 knots
- (C) 8.0 knots
- (D) 7.4 knots

If choice C is selected set score to 1.

4. You are proceeding from a point 4 miles due east of Montauk Point enroute to Long Island Sound via The Race. What should you expect the soundings to do?

- (A) increase rapidly at first then remain constant until through the Race
- (B) start increasing when north of Montauk Point
- (C) remain fairly constant
- (D) be inaccurate due to sound absorption by the mud bottom

If choice B is selected set score to 1.

5. Which of the following describes Block Island?

- (A) surrounded by wide sandy beaches
- (B) hilly with elevations to 200 feet (60.5 m)
- (C) a low, marshy island
- (D) a national bird sanctuary

If choice B is selected set score to 1.

6. You are on course 244° per standard magnetic compass when you sight Block Island Southeast Point Light in line with Block Island Aero Beacon bearing 326° per standard magnetic compass. Based on this information which of the following should you do?
- (A) know the compass error is 12°W
 - (B) swing your vessel to check the deviation table
 - (C) apply 3°W deviation to any bearing (psc) while on a heading of 244°psc
 - (D) suspect that there is a local magnetic disturbance

If choice C is selected set score to 1.

7. At 1020 your position is LAT $41^\circ11.0'\text{N}$, LONG $71^\circ50.0'\text{W}$. You are on course 056° per standard magnetic compass at 9.2 knots. At 1112 your position is LAT $41^\circ15.9'\text{N}$, LONG $71^\circ41.7'\text{W}$. What were the set and drift?
- (A) 141°T at 1.2 knots
 - (B) 331°T at 0.8 knot
 - (C) 346°T at 1.1 knots
 - (D) 130°T at 0.9 knot

If choice A is selected set score to 1.

8. Your position is LAT $41^\circ15.2'\text{N}$, LONG $71^\circ50.1'\text{W}$ at 1347. You are turning for 6.9 knots. What is your ETA at Shagwong Reef Buoy "7SR"?
- (A) 1506
 - (B) 1527
 - (C) 1515
 - (D) 1521

If choice A is selected set score to 1.

9. Your position is 3 miles due east of Montauk Point Light. What is the course to steer to arrive at LAT $41^\circ00.0'\text{N}$, LONG $71^\circ30.0'\text{W}$, if you are turning for 7.8 knots, the current is 130° at 1.2 knots, and a southerly wind causes 3° of leeway?
- (A) 112°T
 - (B) 108°T
 - (C) 102°T
 - (D) 105°T

If choice B is selected set score to 1.

10. Montauk Point Light is 168 feet above what reference level?

- (A) Mean tide level
- (B) Mean high water
- (C) Ground level
- (D) Mean low water

If choice B is selected set score to 1.