

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

### Master Less than 100 Gross Registered Tons

Q350 Chart 12354TR

(Sample Examination)

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

The following questions are to be answered by plotting on chart 12354 TR, Long Island Sound, 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 14° W

DEVIATION TABLE	
HDG.MAG.	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. Your engines are making turns for 8 knots and a northerly wind is causing 3° of leeway. There is a current of 220°T at 1.5 knots. What is the course to steer between Branford Reef Light and Faulkner Island Light?  
A. 095°T  
B. 102°T  
C. 084°T  
D. 108°T

Correct answer: C

2. Your position is LAT 41°03.0'N, LONG 72°42.1'W. If your draft is 8 ft, what should your fathometer read at this position?  
A. 88 ft  
B. 99 ft  
C. 80 ft  
D. 96 ft

Correct answer: C

3. At 1930 your GPS position is LAT 41°08.6'N, LONG 72°41.6'W. At 2024 your position is LAT 41°00.5'N, LONG 72°49.5'W. What is your true course and speed made good?
- A. 036° at 11.1 knots
  - B. 216° at 11.2 knots
  - C. 039° at 9.9 knots
  - D. 219° at 10.1 knots

Correct answer: B

4. At 1815 your position is LAT 41°05.5'N, LONG 72°47.3'W. You are making turns for 12.6 knots. What is your ETA at Plum Island Mid Channel Buoy PI (LAT 41°13.3'N, LONG 72°10.8'W)?
- A. 2038
  - B. 2019
  - C. 2028
  - D. 2032

Correct answer: D

5. According to the U.S. Coast Pilot, what is the depth of the channel between State Pier No. 1 and the U.S. Navy Submarine Base in New London Harbor?
- A. 40 feet (12.1 meters)
  - B. 38 feet (11.5 meters)
  - C. 34 feet (10.3 meters)
  - D. 36 feet (10.9 meters)

Correct answer: D

6. Your present position is LAT 41°05.5'N, LONG 72°38.0'W. Assuming that there is no set and drift, what course must you steer per standard magnetic compass (psc) to arrive at a position 5 miles due south of Saybrook Breakwater Light?
- A. 080°psc
  - B. 089°psc
  - C. 077°psc
  - D. 066°psc

Correct answer: A

7. Your vessel is steady on a heading of 160° per standard magnetic compass when you sight Southwest Ledge Light and New Haven Outer Channel Range Rear Light in line dead astern. What is the deviation of the compass based on this observation?
- A. 5°E
  - B. 5°W
  - C. 2°W
  - D. 2°E

Correct answer: D

Q350-Chart 12354TR  
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Illustrations: 0

8. You are on course  $262^\circ$  per standard magnetic compass when you take the following bearings:

Saybrook Breakwater Light -  $338.5^\circ$ psc  
Little Gull Island Light -  $107.5^\circ$ psc  
Horton Point Light -  $240.0^\circ$ psc

What is your position?

- A. LAT  $41^\circ 12.6'N$ , LONG  $72^\circ 17.2'W$
- B. LAT  $41^\circ 13.0'N$ , LONG  $72^\circ 17.7'W$
- C. LAT  $41^\circ 11.9'N$ , LONG  $72^\circ 16.7'N$
- D. LAT  $41^\circ 12.1'N$ , LONG  $72^\circ 17.3'W$

Correct answer: A

9. At 1825 your GPS position is LAT  $41^\circ 04.9'N$ , LONG  $72^\circ 42.1'W$ . You are on course  $085^\circ$  per standard magnetic compass at a speed of 10 knots. At 1910 your GPS position is 1 mile due south of Twenty-Eight Foot Shoal Lighted Buoy. What were your set and drift?

- A.  $233^\circ T$  at 2.9 knots
- B.  $054^\circ T$  at 2.8 knots
- C.  $051^\circ T$  at 2.1 knots
- D.  $227^\circ T$  at 2.5 knots

Correct answer: B

10. What is the significance of the broken magenta lines which roughly parallel the shore between Roanoke Point and Orient Point on Long Island?

- A. They mark the limits of breakers in that area.
- B. These lines warn the mariner of submerged rocks.
- C. These lines warn the mariner of submerged pipelines.
- D. They mark the boundary lines of fish trap areas.

Correct answer: D