

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

### Mate of Unlimited Tonnage

Q311 Chart 12354TR

(Sample Examination)

Choose the best answer to the following Multiple Choice Questions.

1. The following questions should be answered using Chart 12354TR, Long Island Sound - Eastern Part, and the supporting publications.

Your vessel has a draft of 12 feet (3.7 meters)  
Your height of eye is 24 feet (7.3 meters)  
Variation is 14°W

"Per standard magnetic compass" is abbreviated "psc"  
"Per gyrocompass" is abbreviated "pgc"

**DEVIATION TABLE**

<b>Magnetic Heading</b>	<b>Deviation</b>
000°	0°
030°	1°W
060°	2°W
090°	4°W
120°	2°W
150°	1°W
180°	1°E
210°	2°E
240°	3°E
270°	3°E
300°	2°E
330°	1°E

Your position is LAT 40°59.0'N, LONG 73°06.2'W.

What is the course psc to New Haven Harbor Lighted Whistle Buoy "NH"?

- (A) 052°
- (B) 035°
- (C) 049°
- (D) 046°

*If choice A is selected set score to 1.*

2. You depart from the position in the previous question at 2114 and make good 12 knots on a course of 040°T. At what time will you sight New Haven Light if the visibility is 11 miles?

- (A) The light is visible at 2114.
- (B) 2152
- (C) 2206
- (D) 2159

*If choice D is selected set score to 1.*

3. At 2142, you take the following bearings:  
Stratford Point Light 331°T  
Stratford Shoal Middle Ground Light 280°T  
Old Field Point Light 223°T

What is your 2142 position?

- (A) LAT 41°03.0'N, LONG 73°01.7'W
- (B) LAT 41°03.1'N, LONG 73°01.3'W
- (C) LAT 41°03.3'N, LONG 73°01.9'W
- (D) LAT 41°02.7'N, LONG 73°01.2'W

*If choice A is selected set score to 1.*

4. What was the speed made good between 2114 and 2142?

- (A) 12.0 knots
- (B) 11.4 knots
- (C) 11.7 knots
- (D) 12.3 knots

*If choice B is selected set score to 1.*

5. At 2142, you change course to make good 030°T and increase speed to 14 knots. You rendezvous with another vessel and receive fresh supplies while off New Haven Harbor lighted whistle buoy "NH". What is the light characteristic of this buoy?

- (A) . .
- (B) \_ \_
- (C) . \_
- (D) \_ .

*If choice C is selected set score to 1.*

6. At 0109 you get underway, and at 0112 you take the following bearings: Branford Reef Light bearing 051° true Stratford Point Light bearing 258° true What is your 0112 position?

- (A) LAT 41°11.4'N, LONG 72°51.3'W
- (B) LAT 41°11.6'N, LONG 72°51.6'W
- (C) LAT 41°11.8'N, LONG 72°51.8'W
- (D) LAT 41°11.0'N, LONG 72°51.0'W

*If choice A is selected set score to 1.*

7. (5.8.2.3C15-7) At 0112, what is the approximate depth under the keel?

- (A) 38 feet (11.5 meters)
- (B) 51 feet (15.5 meters)
- (C) 57 feet (17.3 meters)
- (D) 47 feet (14.2 meters)

*If choice A is selected set score to 1.*

8. At 0112, you are on course  $124^{\circ}\text{T}$  and turning for 12.0 knots. What course will you make good if the current is  $255^{\circ}\text{T}$  at 1.2 knots?
- (A)  $132^{\circ}$
  - (B)  $129^{\circ}$
  - (C)  $118^{\circ}$
  - (D)  $120^{\circ}$

*If choice B is selected set score to 1.*

9. Branford Reef is \_\_\_\_\_.
- (A) a small, low, sandy islet surrounded by shoal water
  - (B) a hard sand shoal marked with a light
  - (C) surrounded by rocks awash at low water spring tides
  - (D) completely submerged at all stages of the tide

*If choice D is selected set score to 1.*

10. At 0112, the radar range to Branford Reef Light is 2.9 miles. At 0125, the range is 3.6 miles. What is the position of your 0125 running fix if you are steering  $124^{\circ}\text{T}$  at 12 knots?
- (A) LAT  $41^{\circ}09.3'\text{N}$ , LONG  $72^{\circ}48.7'\text{W}$
  - (B) LAT  $41^{\circ}09.7'\text{N}$ , LONG  $72^{\circ}48.1'\text{W}$
  - (C) LAT  $41^{\circ}09.8'\text{N}$ , LONG  $72^{\circ}47.2'\text{W}$
  - (D) LAT  $41^{\circ}10.2'\text{N}$ , LONG  $72^{\circ}47.7'\text{W}$

*If choice B is selected set score to 1.*

11. At 0130, your position is LAT  $41^{\circ}09.3'\text{N}$ , LONG  $72^{\circ}46.9'\text{W}$  when you change course to  $086^{\circ}\text{T}$ . If you make good  $086^{\circ}\text{T}$ , what is the closest point of approach to Twenty-Eight Foot Shoal Lighted Buoy?
- (A) 0.7 miles
  - (B) 0.9 miles
  - (C) 1.1 mile
  - (D) 1.2 mile

*If choice B is selected set score to 1.*

12. At 0200, you take the following bearings:  
Falkner Island Light  $004.5^{\circ}\text{T}$   
Kelsey Pt. Breakwater Lt.  $054.0^{\circ}\text{T}$   
Horton Point Light  $115.0^{\circ}\text{T}$

What were the set and drift from 0130?

- (A) There is no current.
- (B)  $260^{\circ}$  at 1.0 knot
- (C)  $260^{\circ}$  at 0.5 knot
- (D)  $080^{\circ}$  at 0.5 knot

*If choice B is selected set score to 1.*

**13.** What is the distance from your 0200 position to the point where Twenty-Eight Foot Shoal lighted buoy is abeam to starboard?

- (A) 7.1 miles
- (B) 6.9 miles
- (C) 6.6 miles
- (D) 7.3 miles

*If choice B is selected set score to 1.*

**14.** The shoreline along Rocky Point should give a good radar return because \_\_\_\_\_.

- (A) the shore is bluff and rocky
- (B) submerged reefs cause prominent breakers
- (C) the lookout tower is marked with radar reflectors
- (D) of offshore exposed rocks

*If choice A is selected set score to 1.*

**15.** You sight Bartlett Reef Light in line with New London Harbor Light bearing  $043^{\circ}$ pgc. You are heading  $088^{\circ}$ pgc and  $098.5^{\circ}$  per standard magnetic compass at the time of the observation. Which statement is TRUE?

- (A) The gyro error is  $2^{\circ}$ E.
- (B) The deviation is  $1.5^{\circ}$ E by observation.
- (C) The true heading at the observation was  $090^{\circ}$ .
- (D) The magnetic compass error is  $9.5^{\circ}$ W.

*If choice B is selected set score to 1.*