

U.S.C.G. Merchant Marine Exam
Master Uninspected Fishing Vessels
Q185 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. If the speed necessary for reaching port at a designated time is 19.2 knots and the pitch of the propeller is 22.7 feet, how many revolutions per minute will the shaft have to turn, assuming a 4% positive slip?
- (A) 103
 - (B) 82
 - (C) 89
 - (D) 96

If choice C is selected set score to 1.

4. Your vessel departs Seattle at 1010 zone time, (ZD +8), on 28 May bound for Apra, Guam, (ZD -10). The distance by great circle is 4,948 miles, and you estimate that you will average 18.5 knots. What is your estimated zone time of arrival?
- (A) 0737, 10 June
 - (B) 1937, 9 June
 - (C) 1737, 9 June
 - (D) 0737, 9 June

If choice D is selected set score to 1.

5. A vessel at LAT $32^{\circ}14.7'N$, LONG $66^{\circ}28.9'W$, heads for a destination at LAT $36^{\circ}58.7'N$, LONG $75^{\circ}42.2'W$. Determine the distance by Mercator sailing.
- (A) 300.2° miles
 - (B) 538.2° miles
 - (C) 241.2° miles
 - (D) 270.2° miles

If choice B is selected set score to 1.

6. You are underway on course $160^{\circ}T$ at 10 knots. The current is $210^{\circ}T$ at 0.9 knots. What is the course made good?
- (A) $169^{\circ}T$
 - (B) $160^{\circ}T$
 - (C) $156^{\circ}T$
 - (D) $164^{\circ}T$

If choice D is selected set score to 1.

7. You have steamed 746 miles at 14.0 knots, and consumed 152 tons of fuel. If you have 201 tons of usable fuel remaining, how far can you steam at 10 knots?
- (A) 2263 miles
 - (B) 1381 miles
 - (C) 1934 miles
 - (D) 2707 miles

If choice C is selected set score to 1.

8. You are taking a time tick using the 2000 signal from Kekaha-Kauai, Hawaii (WWVH). You hear a series of 1 second dashes followed by a 9 second silent period, then a long 1.3 second dash. At the beginning of the long dash, your comparing watch reads 07h 59m 54s. When compared to the chronometer, the comparing watch reads 08h 00m 00s, and the chronometer reads 08h 00m 06s. What is the chronometer error?
- (A) No error
 - (B) 0m 06s fast
 - (C) 0m 12s fast
 - (D) 0m 06s slow

If choice A is selected set score to 1.

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Illustrations: 0

9. 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 $093^{\circ}T$, and the variation is $6^{\circ}E$. If the heading of your vessel at the time of the sighting is 097° per standard magnetic compass, what is the correct deviation?
- (A) $5^{\circ}E$
 - (B) $10^{\circ}E$
 - (C) $5^{\circ}W$
 - (D) $10^{\circ}W$

If choice D is selected set score to 1.

10. You swung ship and compared the magnetic compass against the gyro compass to find deviation. Gyro error is $2^{\circ}W$. The variation is $8^{\circ}W$. Find the deviation on a magnetic compass heading of 210° .

HEADING	HEADING	HEADING
<u>PSC-PGC</u>	<u>PSC-PGC</u>	<u>PSC-PGC</u>
$358.5^{\circ}-354^{\circ}$	$122.5^{\circ}-114^{\circ}$	$239.5^{\circ}-234^{\circ}$
$030.5^{\circ}-024^{\circ}$	$152.0^{\circ}-144^{\circ}$	$269.0^{\circ}-264^{\circ}$
$061.5^{\circ}-054^{\circ}$	$181.0^{\circ}-174^{\circ}$	$298.0^{\circ}-294^{\circ}$
$092.0^{\circ}-084^{\circ}$	$210.0^{\circ}-204^{\circ}$	$327.5^{\circ}-324^{\circ}$

- (A) $0.5^{\circ}W$
- (B) $0.5^{\circ}E$
- (C) $1.0^{\circ}E$
- (D) 0.0°

If choice D is selected set score to 1.