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. At your current speed of 19 knots you only have enough fuel remaining to travel 265 miles. You must travel 731 miles to reach your destination. What should you reduce your speed (knots) to in order to reach your destination?

- ○ (A) 10.2
- ○ (B) 13.8
- ● (C) 11.4
- ○ (D) 12.6

If choice C is selected set score to 1.

2. On 21 November at 2100 zone time, you depart LAT 32°12.0'N, LONG 69°26.0'W enroute to LAT 12°05.0'N, LONG 7°32.0'W. The distance is 3,519 miles, and the average speed will be 12.5 knots. What is the zone time of arrival?

- ○ (A) 1330, 3 December
- ○ (B) 1530, 3 December
- ● (C) 1830, 3 December
- ○ (D) 1530, 4 December

If choice C is selected set score to 1.

3. What will be the velocity of the tidal current 6 miles south of Shoal Point, NY, at 1850 DST (ZD +4) on 9 July 1983?

- ○ (A) 0.2 knot ebb
- ● (B) 0.2 knot flood
- ○ (C) 1.2 knot ebb
- ○ (D) 1.4 knot flood

If choice B is selected set score to 1.

4. On 6 July 1983, at 1830 DST (ZD +4), what will be the predicted height of tide at Newburgh, NY?

- ○ (A) 3.3 feet
- ○ (B) 2.6 feet
- ○ (C) 2.4 feet
- ● (D) 2.0 feet

If choice D is selected set score to 1.

5. You are taking a time tick using the 1930 signal from Rio de Janeiro, Brazil. You hear the preparatory signal "CQ DE PPE" repeated several times followed by a short dash (0.4 sec), 60 dots (0.1 sec each) and another short dash. At the beginning of the last dash, the comparing watch reads 07h 30m 08s. When compared to the chronometer, the comparing watch reads 07h 31m 48s, and the chronometer reads 07h 32m 16s. What is the chronometer error?

    o   (A) 1m 40s slow
    o   (B) 0m 28s slow
    o   (C) 0m 08s fast
    •   (D) 0m 36s fast

    If choice D is selected set score to 1.

6. Your ship is entering port from sea, and you sight a pair of range lights. When in line, they bear 315° per standard magnetic compass. The chart shows that the range bearing is 312°T, and that variation is 6°W. What is the deviation of your compass at the time of the sighting?

    •   (A) 3°E
    o   (B) 3°W
    o   (C) 9°E
    o   (D) 9°W

    If choice A is selected set score to 1.

7. If the pitch of the propeller is 21.5 feet, and the revolutions per day are 96,666, calculate the day's run allowing 9% negative slip.

    o   (A) 311.1 miles
    o   (B) 357.9 miles
    o   (C) 341.8 miles
    •   (D) 372.6 miles

    If choice D is selected set score to 1.

8. You swung ship and compared the magnetic compass against the gyrocompass to find deviation. Gyro error is 2°W. The variation is 8°W. Find the deviation on a true heading of 236°.

HEADING

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

- ○ (A) 1.0°W
- ● (B) 0.5°E
- ○ (C) 1.5°E
- ○ (D) 0.0°

If choice B is selected set score to 1.

9. You depart LAT 40°42.0'N, LONG 74°01.0'W, and steam 3365.6 miles on course 118°T. What is the longitude of your arrival by Mercator sailing?

- ○ (A) 10°46.0'W
- ● (B) 17°41.0'W
- ○ (C) 24°29.0'W
- ○ (D) 22°58.0'W

If choice B is selected set score to 1.

10. You desire to make good a true course of 157°. The variation is 15°E, magnetic compass deviation is 9°W, and gyrocompass error is 3°E. A southwesterly wind produces a 2° leeway. What is the course to steer per standard magnetic compass to make the true course good?

- ○ (A) 145°psc
- ○ (B) 147°psc
- ○ (C) 150°psc
- ● (D) 153°psc

If choice D is selected set score to 1.