

U.S.C.G. Merchant Marine Exam

Master Less than 500-1600 Gross Registered Tons

Q324-Great Lakes Topics

(Sample Examination)

Choose the best answer to the following Multiple Choice Questions.

1. Your vessel is running in a following sea. Which term defines the motion your vessel is experiencing?

- (A) Yawing
- (B) Heaving to
- (C) Pounding
- (D) Reduced speed

If choice A is selected set score to 1.

2. Fog can form in any season on the Great Lakes, but it is most likely to occur over open waters in which period?

- (A) Autumn and early winter
- (B) Spring and early summer
- (C) Summer and early autumn
- (D) Winter and early spring

If choice B is selected set score to 1.

3. Your vessel is off a lee shore in heavy weather and laboring. Which action should you take?

- (A) Heave to in the trough of the sea.
- (B) Put the sea and wind on either quarter and proceed at increased speed.
- (C) Put the bow directly into the sea and proceed at full speed.
- (D) Put the sea and wind about two points on either bow and reduce speed.

If choice D is selected set score to 1.

4. You are steaming in a heavy gale and find it necessary to heave to. Under most circumstances, how is this best accomplished?

- (A) Stopping the engines and drifting beam to the seas
- (B) Taking the sea fine on the bow and reducing the speed
- (C) Going slow astern and taking the seas on the quarter
- (D) Increasing the speed and taking the sea broad on the bow

If choice B is selected set score to 1.

5. Which statement concerning storm surges on the Great Lakes is FALSE?

- (A) They are common along the deeper areas of the lakes.
- (B) They cause rapid differences in levels between one end of the lake and the other.
- (C) The greatest water level difference occurs when the wind is blowing along the axis of the lake.
- (D) If the wind subsides rapidly, a Seiche effect will most likely occur.

If choice A is selected set score to 1.

6. Which action reduces the yawing of a vessel in a following sea?

- (A) Pumping out tanks aft
- (B) Increasing GM
- (C) Shifting weights to the stern
- (D) Shifting weights to the bow

If choice C is selected set score to 1.

7. Which term defines when a vessel is swinging from side to side off course due to quartering seas?

- (A) Broaching
- (B) Rolling
- (C) Pitchpoling
- (D) Yawing

If choice D is selected set score to 1.

8. Who publishes the "Canadian List of Lights, Buoys and Fog Signals"?

- (A) The U.S. Coast Guard
- (B) The Canadian Coast Guard
- (C) The Canadian Hydrographic Service
- (D) The U.S. Hydrographic Service

If choice B is selected set score to 1.

9. When running before a heavy sea, what will moving weights aft on the vessel accomplish?

- (A) Reduce the yawing of the vessel
- (B) Reduce the rolling of the vessel
- (C) Increase the rolling of the vessel
- (D) Increase the yawing of the vessel

If choice A is selected set score to 1.

10. Your vessel is underway and approaching an overhead obstruction on Lake Superior. Given the following information, determine the clearance between your vessel and the obstruction. Highest point on vessel: 74 ft. Lowest point of obstruction: 126 (LWD) Monthly lake level: +2 (LWD) International Great Lakes Datum: 600.0 (182.88 meters)

- (A) 474 feet
- (B) 400 feet
- (C) 175 feet
- (D) 50 feet

If choice D is selected set score to 1.

11. Which vessel is exempt from the load line and marking requirements for vessels operating on the Great Lakes System?

- (A) A 300 GT tank barge operating exclusively on Lake Michigan
- (B) A 200 GT passenger vessel operating between Duluth, MN and Munising, MI
- (C) A 500 GT dry cargo river barge operated continuously between Calumet Hbr Chicago, IL and Burns Hbr, IN
- (D) A 79-foot, 150 GT pleasure craft operating on the St. Lawrence River

If choice C is selected set score to 1.

12. Advection fog holds longest over which portions of the lakes?

- (A) Southeast
- (B) Northeast
- (C) Southwest
- (D) Northwest

If choice D is selected set score to 1.

13. There are basically three categories of water level fluctuations on the Great Lakes. What is NOT included as one of these?

- (A) Controlled outflow fluctuations
- (B) Long range fluctuations
- (C) Short period fluctuations
- (D) Seasonal fluctuations

If choice A is selected set score to 1.

14. Which of the Great Lakes experiences the least amount of water level fluctuation between seasonal high and low water marks?

- (A) Lake Michigan
- (B) Lake Huron
- (C) Lake Erie
- (D) Lake Superior

If choice D is selected set score to 1.

15. Which defines the term "Seiche"?

- (A) The lake current which is predominant during the spring and fall navigation season on the Great Lakes
- (B) An oscillation caused by the diminishing of forces which cause lake level fluctuations
- (C) A higher than normal high water or lower than normal low water
- (D) An unusually strong storm system which approaches the Great Lakes System generally from the Northeast

If choice B is selected set score to 1.

16. How are distances on the Great Lakes System are generally expressed?

- (A) Miles above the entrance to the St. Lawrence Seaway (MASLW)
- (B) Statute miles
- (C) Nautical miles
- (D) Miles above the head of the passes (AHP)

If choice B is selected set score to 1.

17. Which statement is TRUE concerning weather conditions on the Great Lakes?

- (A) When a vessel is south of an eastward-moving storm center, the approach of the low is evidenced by winds from the north to northeast.
- (B) Thunderstorms are most likely to develop from November through April.
- (C) When a vessel is north of an eastward-moving storm center, changes in the weather are less distinctive than when sailing south of the center.
- (D) The most destructive storms usually come from the northwest or north.

If choice C is selected set score to 1.

18. A vessel is loaded to her summer marks for a voyage from Montreal, Canada to Duluth, MN via the Great Lakes System. The voyage has been estimated to take nine (9) days. If the vessel departs Montreal on September 28th, which of the following statements is TRUE?

- (A) The vessel is in violation of the load line requirements.
- (B) The vessel must be at her summer marks when she arrives at Duluth.
- (C) The vessel must be at her winter marks by the evening of the third day.
- (D) The vessel's intermediate load line marks may not be submerged after September 30.

If choice D is selected set score to 1.

19. What does the line labeled "MS" indicate on the Great Lakes load line model shown in illustration D031DG below?

- (A) Midsummer
- (B) Midseason
- (C) Mean sea level
- (D) Maximum submergence

If choice A is selected set score to 1.

20. How are aids to navigation on the Great Lakes arranged geographically?

- (A) In an easterly and southerly direction, except on the New York State Barge Canal
- (B) In a westerly and northerly direction, except on Lake St. Clair
- (C) In a westerly and northerly direction, except on Lake Michigan
- (D) In an easterly and southerly direction, except on Lake Erie

If choice C is selected set score to 1.

21. Assume that your vessel has just entered Lake Erie by way of the Welland Canal and is proceeding in a southwesterly direction. Which statement about the aids to navigation you can expect to encounter along the route is TRUE?

- (A) All red even-numbered buoys should be kept on your port side when proceeding in this direction.
- (B) Lighted aids, fog signals, and radio beacons maintained by Canada are not included in the Great Lakes Light List.
- (C) The characteristics of buoys and other aids are as if "returning from seaward" when proceeding in this direction.
- (D) All aids are maintained by the U.S. Coast Guard, 9th Coast Guard District, Cleveland, Ohio.

If choice C is selected set score to 1.

22. A vessel operating on the Great Lakes, and whose position is south of an eastward-moving storm center, would experience which condition?

- (A) A southeast to south wind
- (B) A rising barometer
- (C) High clouds
- (D) Fog

If choice A is selected set score to 1.

23. Generally speaking, which direction do the more destructive storms occurring on the Great Lakes usually come from?

- (A) The northwest or north
- (B) The southeast or south
- (C) The northeast or east
- (D) The southwest or west

If choice D is selected set score to 1.

24. Your vessel is on a voyage from Ogdensburg, NY, to Chicago, IL, via the Great Lakes. The date is October 3 of the current year. If your vessel is subject to the load line requirements, using illustration D031DG below, to which of her marks should she be loaded?

- (A) Salt water - Intermediate
- (B) Fresh water - Intermediate
- (C) Salt water - Winter
- (D) Fresh water - Winter

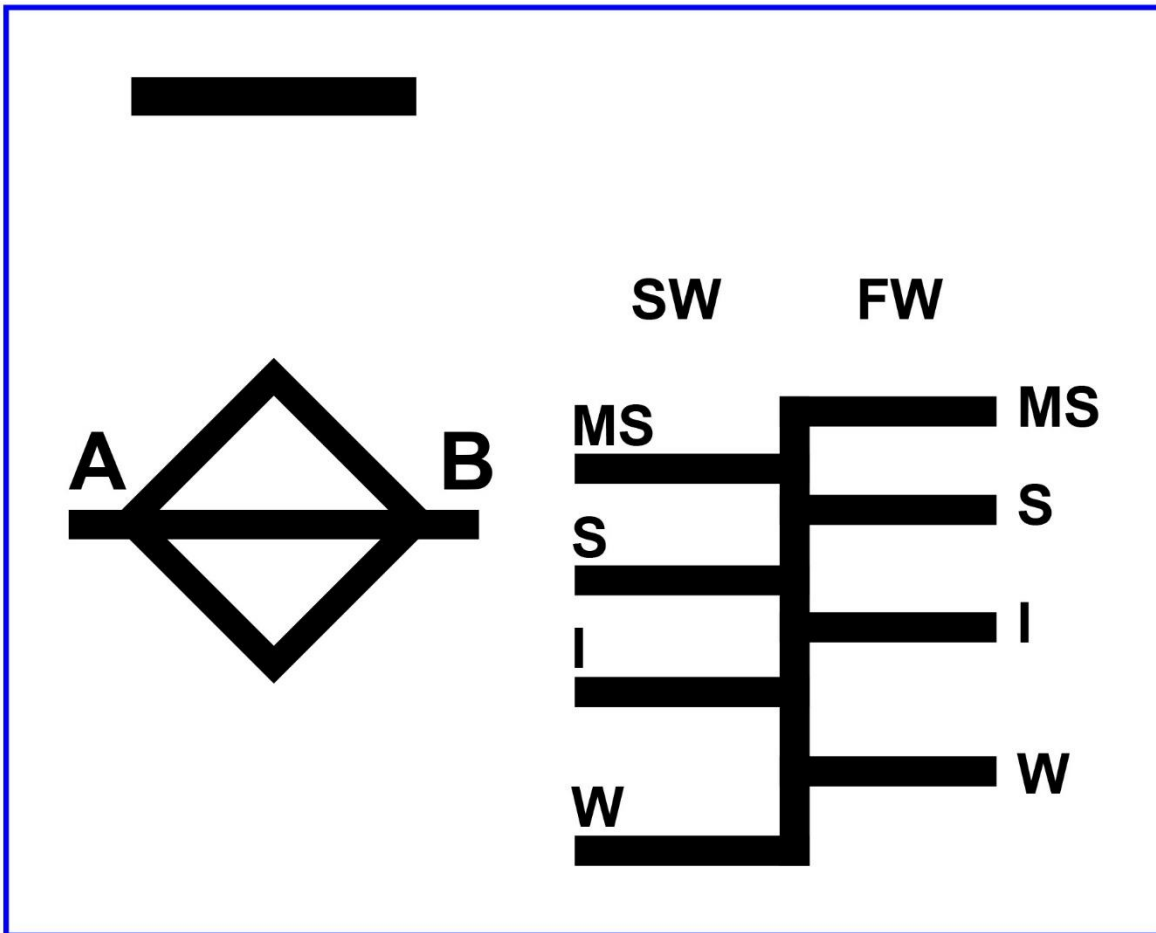
If choice B is selected set score to 1.

25. What is meant by the term "broaching to"?

- (A) Having the vessel filled with water
- (B) Running before a sea
- (C) Being turned broadside to the sea
- (D) Having the vessel head toward the sea

If choice C is selected set score to 1.

D031DG



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