

## 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. You are underway in heavy weather and your bow is into the seas. To prevent pounding, you should \_\_\_\_\_.

- (A) decrease speed
- (B) secure all loose gear
- (C) change course, in order to take the seas at an 85 degree angle from the bow
- (D) increase speed

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

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

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

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

3. What is NOT characteristic of the conditions which would be experienced by a vessel located southeast of an approaching eastward-moving storm center on the Great Lakes?

- (A) Lowering clouds
- (B) Rain or snow
- (C) A westerly wind
- (D) Falling barometer

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

4. Which of the Great Lakes is generally the last to reach its seasonal low and seasonal high water marks?

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

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

5. Which publication offers information on Great Lakes ice services?

- (A) Marine Weather Log
- (B) National Weather Service, Ice Outlooks
- (C) U.S. Coast Pilot #6
- (D) Light List volume VII

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

6. The phenomenon known as a "seiche" is most likely to occur on Lake Erie \_\_\_\_\_.
- (A) when the Moon and Sun are in alignment
  - (B) when strong winds from the Northeast suddenly diminish
  - (C) during the passage of a rapidly moving warm front
  - (D) during the months of May through August

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

7. Your vessel has been ordered to proceed to the United Grain Growers Wharf at Thunder Bay, Lake Superior, for the purpose of taking on a load of wheat. Which publication(s) would you consult for such information as the length of the wharf, the depth of the water alongside, and the loading capacity at the facility?
- (A) The Lake Carriers Association Facilities Directory
  - (B) The United States Coast Pilot #6
  - (C) The International Guide to Canadian Ports and Facilities
  - (D) The Navigational Chart and Light List Vol. VII

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

8. Fog can form in any season on the Great Lakes, but it is most likely to occur over open waters in \_\_\_\_\_.
- (A) spring and early summer
  - (B) summer and early autumn
  - (C) autumn and early winter
  - (D) winter and early spring

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

9. Which of the Great Lakes lies entirely within the United States?
- (A) Lake Ontario
  - (B) Lake Superior
  - (C) Lake St. Clair
  - (D) Lake Michigan

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

**10.** 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) Salt water - Winter
- (C) Fresh water - Winter
- (D) Fresh water - Intermediate

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

**11.** On the Great Lakes, the term "controlling depth" means the \_\_\_\_\_.

- (A) designed dredging depth of a channel constructed by the Corps. of Engineers
- (B) least depth within the limits of the channel which restricts the navigation
- (C) minimum amount of tail water available behind a dam
- (D) distance in units of the chart (feet, meters or fathoms) from the reference datum to the bottom

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

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

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

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

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

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

**14.** In illustration D031DG below, what does the single line located directly above the diamond indicate?

- (A) freeboard line
- (B) water line
- (C) load line
- (D) deck line

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

**15.** Which of the Great Lakes generally has the shortest navigation season?

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

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

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

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

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

**17.** On the Great Lakes, winter storms compound the ice threat by bringing a variety of wind, wave, and weather problems on an average of every \_\_\_\_\_.

- (A) four days
- (B) five days
- (C) two days
- (D) three days

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

**18.** Nearly half of all storms that enter the Great Lakes Basin during the period from October through May come from \_\_\_\_\_.

- (A) highs which originate in north eastern and eastern Canada
- (B) highs which originate in the east and east central USA
- (C) lows which originate in the central and western USA
- (D) lows which originate in north central and western Canada

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

**19.** Which type of fog is the most dense and widely spread of those that occur on the Great Lakes?

- (A) Radiation fog
- (B) Steam fog
- (C) Lake effect fog
- (D) Advection fog

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

**20.** Generally speaking, the more destructive storms occurring on the Great Lakes usually come from the \_\_\_\_\_.

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

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

**21.** If your propeller is racing in rough weather, you should \_\_\_\_\_.

- (A) increase your engine speed
- (B) decrease your engine speed
- (C) ignore it
- (D) stop your engine until the rough weather passes

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

**22.** When running before a heavy sea, moving weights aft will affect the handling of a vessel by \_\_\_\_\_.

- (A) increasing yawing
- (B) reducing yawing
- (C) increasing rolling
- (D) reducing rolling

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

**23.** When a vessel is swinging from side to side off course due to quartering seas, the vessel is \_\_\_\_\_.

- (A) pitchpoling
- (B) rolling
- (C) broaching
- (D) yawing

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

**24.** Your vessel is broken down and rolling in heavy seas. You can reduce the danger of capsizing by \_\_\_\_\_.

- (A) moving all passengers to the stern
- (B) moving all passengers to one side of the boat
- (C) rigging a sea anchor
- (D) constantly shifting the rudder

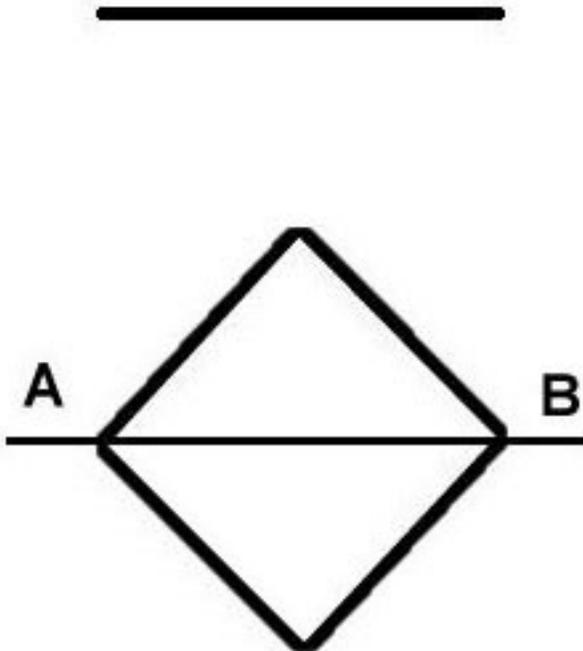
*If choice C is selected set score to 1.*

**25.** When making way in heavy seas you notice that your vessel's screw is being lifted clear of the water and racing. One way to correct this would be to \_\_\_\_\_.

- (A) move more weight forward
- (B) increase speed
- (C) shift the rudder back and forth several times
- (D) decrease speed

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

## D031DG



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