

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. In a following sea, a wave has overtaken your vessel and thrown the stern to starboard. To continue along your original course, which action should you take?
- A. Decrease speed
 - B. Use more left rudder
 - C. Use more right rudder
 - D. Increase speed

Correct answer: C

2. Where on a vessel are the load line markings shown in illustration D031DG inscribed?
- A. Around the stern
 - B. Both the port and starboard sides
 - C. The port side
 - D. The starboard side

Correct answer: B

3. Which basic category of water level fluctuations on the Great Lakes is the most regular?
- A. Outflow fluctuations
 - B. Long-term fluctuations
 - C. Seasonal fluctuations
 - D. Short-term fluctuations

Correct answer: C

4. What does the line labeled "MS" indicate on the Great Lakes load line model shown in illustration D031DG below?
- A. Midseason
 - B. Maximum submergence
 - C. Midsummer
 - D. Mean sea level

Correct answer: C

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

Correct answer: D

6. 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 bow directly into the sea and proceed at full speed.
 - C. Put the sea and wind about two points on either bow and reduce speed.
 - D. Put the sea and wind on either quarter and proceed at increased speed.

Correct answer: C

7. You are steaming in a heavy gale and find it necessary to heave to. Under most circumstances, how is this best accomplished?
- A. Taking the sea fine on the bow and reducing the speed
 - B. Increasing the speed and taking the sea broad on the bow
 - C. Going slow astern and taking the seas on the quarter
 - D. Stopping the engines and drifting beam to the seas

Correct answer: A

8. Which is usually the most gentle way of riding out a severe storm on a larger vessel?
- A. Hove to
 - B. Head into the seas at slow speeds
 - C. Running before the seas
 - D. Rig a sea anchor

Correct answer: C

9. You are transiting the Straits of Mackinac by way of an improved channel. You have information which indicates that the channel's Federal project depth is 28 ft. Which of the following statements is true with regards to this channel?
- A. The design dredging depth of the channel is 28 ft.
 - B. The channel has 28 ft. in the center but lesser depths may exist in the remainder of the channel.
 - C. The least depth within the limits of the channel is 28 ft.
 - D. The maximum depth which may be expected within the limits of the channel is 28 ft.

Correct answer: A

10. When is the phenomenon known as a "seiche" 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. Only during the months of May through August
 - D. During the passage of a rapidly moving warm front

Correct answer: B

- 11.** 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

Correct answer: D

- 12.** Generally speaking, which direction do the more destructive storms occurring on the Great Lakes usually come from?
- A. The northeast or east
 - B. The southeast or south
 - C. The northwest or north
 - D. The southwest or west

Correct answer: D

- 13.** Who publishes the "Canadian List of Lights, Buoys and Fog Signals"?
- A. The U.S. Coast Guard
 - B. The U.S. Hydrographic Service
 - C. The Canadian Hydrographic Service
 - D. The Canadian Coast Guard

Correct answer: D

- 14.** You are heading into the sea during rough weather. What may happen if there is too much weight forward in your small boat?
- A. The craft will rise rapidly over the wave
 - B. The craft will list severely
 - C. The craft will broach
 - D. The craft may plunge into the wave

Correct answer: D

- 15.** How are nautical charts published by the Canadian Hydrographic service which are referenced in the United States Coast Pilot identified?
- A. The letter "C" in parentheses following the chart number
 - B. A footnote number
 - C. An asterisk preceding the chart number
 - D. The abbreviation "can" preceding the chart number

Correct answer: C

16. On the Great Lakes, which defines the term "controlling depth"?

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

Correct answer: D

17. On the Great Lakes, winter storms compound the ice threat by bringing a variety of wind, wave, and weather problems. On an average, how often do these storms occur?

- A. Every two days
- B. Every five days
- C. Every three days
- D. Every four days

Correct answer: D

18. Which vessel may be exempt from the load line and marking requirements for vessels operating on the Great Lakes System?

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

Correct answer: A

19. 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

Correct answer: A

20. If your propeller is racing in rough weather, which action should you take?

- A. Stop your engine until the rough weather passes
- B. Decrease your engine speed
- C. Ignore it, this is acceptable in rough weather
- D. Increase your engine speed

Correct answer: B

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

- A. Lake Ontario
- B. Lake Superior
- C. Lake Michigan
- D. Lake Huron

Correct answer: B

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

- A. Southeast
- B. Southwest
- C. Northeast
- D. Northwest

Correct answer: D

23. A vessel operating on the Great Lakes, and whose position is south of an approaching eastward-moving storm center, would NOT experience which condition?

- A. The lowering clouds and drizzle
- B. A southwest to west wind
- C. A falling barometer
- D. Either rain or snow

Correct answer: B

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

- A. 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.
- B. 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.
- C. Thunderstorms are most likely to develop from November through April.
- D. The most destructive storms usually come from the northwest or north.

Correct answer: A

25. Which describes nearly half of all storms that enter the Great Lakes Basin during the period from October through May?

- A. Highs which originate in the east and east central USA
- B. Lows which originate in the central and western USA
- C. Highs which originate in northeastern and eastern Canada
- D. Lows which originate in north central and western Canada

Correct answer: B



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