

U.S.C.G. Merchant Marine Exam

Master Less than 500-1600 Gross Registered Tons Rivers

Q388 Navigation General - Rivers

(Sample Examination)

Choose the best answer to the following Multiple Choice Questions.

1. Under the U.S. Aids to Navigation System on the Western Rivers, what color are the buoys marking the starboard side of the channel when going upstream?
- (A) Green
 - (B) Black
 - (C) Yellow
 - (D) Red

If choice D is selected set score to 1.

2. Which would influence a magnetic compass?
- (A) Radio
 - (B) Electrical wiring
 - (C) Iron pipe
 - (D) All of the above

If choice D is selected set score to 1.

3. Which condition would most likely result in fog?
- (A) Dew point falling below the air temperature
 - (B) Airborne dust particles
 - (C) Warm moist air blowing over cold water
 - (D) Warm moist air blowing over warm water

If choice C is selected set score to 1.

4. Which is TRUE concerning privately maintained aids to navigation included in the Light List?
- (A) They must conform to the standards of the U.S. Aids to Navigation System
 - (B) Not permitted in or along first-class waterways and may be authorized for second- and third-class waterways
 - (C) They must be conspicuously marked by a signboard with the words "PRIVATE AID"
 - (D) They are painted white and must use a white light if lighted

If choice A is selected set score to 1.

5. Which defines the controlling depth of the river?
- (A) The highest level to which the river may rise without flooding
 - (B) The least available water in a channel which limits the draft of boats and tows
 - (C) The minimum depth of the river prescribed in the channel maintenance program
 - (D) The edge of a dredged channel

If choice B is selected set score to 1.

6. A section of the river that is narrower than usual and is often navigable from bank to bank is a _____.

- (A) navigable pass
- (B) stabilized channel
- (C) slough
- (D) chute

If choice D is selected set score to 1.

7. Under the U.S. Aids to Navigation System, which category is a yellow buoy?

- (A) A safe water buoy
- (B) A special purpose mark
- (C) A junction buoy
- (D) A cardinal mark

If choice B is selected set score to 1.

8. You are approaching a drawbridge and must pass through during a scheduled closure period. What signal should you sound?

- (A) Two prolonged, two short blasts
- (B) Three short blasts, two prolonged blasts
- (C) Three prolonged blasts
- (D) Five short blasts

If choice D is selected set score to 1.

9. A daymark used to indicate the starboard side of the channel when approaching from seaward will have the shape indicated by what letter in illustration D045NG below?

- (A) A
- (B) B
- (C) C
- (D) D

If choice D is selected set score to 1.

10. You are in a channel inbound from sea. A daymark used to mark a channel junction, when the preferred channel is to port will have the shape indicated by what letter in illustration D045NG below?

- (A) A
- (B) B
- (C) C
- (D) D

If choice D is selected set score to 1.

11. An orange and white buoy indicating a vessel-exclusion area will be marked with what symbol?

- (A) Open-faced diamond
- (B) Circle
- (C) Diamond with a cross
- (D) Square

If choice C is selected set score to 1.

12. Which term describes a light, feathery deposit of ice by sublimation of water vapor directly into the crystalline form on objects whose temperatures are below freezing?

- (A) Frost
- (B) Dew
- (C) Glaze
- (D) Snow

If choice A is selected set score to 1.

13. You are entering an east coast port and see a buoy with a yellow triangle painted on it. What does the symbol indicate?

- (A) The buoy is off station
- (B) You are in the vicinity of the ICW
- (C) The buoy designates a sharp turn in the channel
- (D) The buoy is a special mark

If choice B is selected set score to 1.

14. What does the abbreviation L.W.R.P. on the navigation maps mean?

- (A) Least water river plane
- (B) Land wall reference point
- (C) Low winter runoff point
- (D) Low water reference plane

If choice D is selected set score to 1.

15. Which buoy may be odd numbered?

- (A) Unlighted nun buoy
- (B) Lighted green buoy
- (C) Mid-channel buoy
- (D) All of the above

If choice B is selected set score to 1.

16. In the U.S. Aids to Navigation System, lateral aids as seen entering from seaward will display lights with which characteristic?

- (A) Quick Flashing
- (B) Occulting
- (C) Flashing
- (D) All of the above

If choice D is selected set score to 1.

17. Entering from sea, how would a daymark on the port side of the channel be indicated on a chart?

- (A) A red triangle with the letter R
- (B) A white triangle with the letters RG
- (C) A green square with the letter G
- (D) A white square with the letters GR

If choice C is selected set score to 1.

18. Your vessel is on course 270°T, speed 10 knots. The apparent wind is from 10° off the port bow, speed 30 knots. From which direction is the true wind?

- (A) 345°T
- (B) 075°T
- (C) 255°T
- (D) 165°T

If choice C is selected set score to 1.

19. When outbound from a U.S. port, what does a buoy displaying a flashing red light indicate?

- (A) The port side of the channel
- (B) A sharp turn in the channel to the right
- (C) A wreck to be left on the vessel's starboard side
- (D) A junction with the preferred channel to the left

If choice A is selected set score to 1.

20. Temperature and moisture characteristics are modified in a warm or cold air mass due to which factor?

- (A) Pressure changes in the air mass
- (B) The heterogeneous nature of the air mass
- (C) Upper level atmospheric changes
- (D) Movement of the air mass

If choice D is selected set score to 1.

21. Steam fog is most likely to occur on the Mississippi and Ohio Rivers in _____.

- (A) summer, around early morning
- (B) spring, around early evening
- (C) spring, around late evening
- (D) fall, around midday

If choice A is selected set score to 1.

22. Under which circumstances is the dumping of refuse in a lock permitted?

- (A) Only when locking downbound
- (B) When approved by the lockmaster
- (C) At no time
- (D) During high water only

If choice C is selected set score to 1.

23. Which form of cloud that is often known as "mackerel sky" is generally associated with fair weather?

- (A) Cirrocumulus
- (B) Stratus
- (C) Nimbostratus
- (D) Cumulonimbus

If choice A is selected set score to 1.

24. In illustration D045NG below, which shape is a daymark warning of danger?

- (A) A
- (B) B
- (C) C
- (D) D

If choice B is selected set score to 1.

25. What is published by the U.S. Coast Guard?

- (A) U.S. Coast Pilot
- (B) Light List
- (C) Nautical Charts
- (D) Tide Tables

If choice B is selected set score to 1.

26. A current moving across a lock entrance toward the river or toward the dam is known by which term?

- (A) Cutoff
- (B) Springpool
- (C) Outdraft
- (D) Lockwash

If choice C is selected set score to 1.

27. Which is TRUE if the compass heading and the magnetic heading are the same?

- (A) The deviation has been offset by the variation
- (B) There is something wrong with the compass
- (C) The compass is being influenced by nearby metals
- (D) There is no deviation on that heading

If choice D is selected set score to 1.

28. Which would you expect to see on a lighted preferred-channel buoy?

- (A) A yellow light
- (B) A Morse (A) white light
- (C) A composite group-flashing light
- (D) A fixed red light

If choice C is selected set score to 1.

29. When does a Doppler speed log indicate speed over ground?

- (A) At all times
- (B) The unit can only sense speed over ground when there is no current
- (C) When sensing the bottom in depths of less than 600 feet
- (D) When the unit is in the volume reverberation mode

If choice C is selected set score to 1.

30. Brief, violent showers frequently accompanied by thunder and lightning are usually associated with _____.

- (A) passage of a cold front
- (B) stationary high pressure systems
- (C) passage of a warm front
- (D) winds shifting counterclockwise in the Northern Hemisphere

If choice A is selected set score to 1.

31. On a working copy of a weather map what color is the line that represents a stationary front?

- (A) Blue
- (B) Purple
- (C) Alternating red and blue
- (D) Red

If choice C is selected set score to 1.

32. What color lights do lighted information markers display?

- (A) White lights
- (B) Green lights
- (C) Yellow lights
- (D) Red lights

If choice A is selected set score to 1.

33. Mean lower low water is the reference plane used for which measurements?

- (A) The heights above water for lights, mountains, etc.
- (B) All vertical measurements
- (C) The soundings on the U.S. east and west coasts
- (D) The water depths on the U.S. east coast only

If choice C is selected set score to 1.

34. Advection fog is most commonly caused by _____.

- (A) warm moist air being blown over a colder surface
- (B) saturation of cold air by rain
- (C) a rapid cooling of the air near the surface of the Earth at night
- (D) air being warmed above the dew point

If choice A is selected set score to 1.

35. Which is a characteristic of anticyclones?

- (A) Overcast skies
- (B) Gustiness and continuous precipitation
- (C) Dry, fair weather
- (D) High winds and cloudiness

If choice C is selected set score to 1.

36. The dry bulb temperature is 38° F (3.3° C) and the wet bulb temperature is 29° F (-1.7° C). What is the relative humidity?

- (A) 18%
- (B) 25%
- (C) 30%
- (D) 33%

If choice B is selected set score to 1.

37. When operated over a muddy bottom, a fathometer may indicate which of the following?

- (A) No depth reading
- (B) A shallow depth reading
- (C) A zero depth reading
- (D) Two depth readings

If choice D is selected set score to 1.

38. Which publication would describe the explosive anchorages in the ports on the east coast of the United States?

- (A) Coast Pilot
- (B) Pilot Rules for Inland Waters
- (C) Sailing Directions
- (D) Notice to Mariners

If choice A is selected set score to 1.

39. When observing a rapid rise in barometric pressure, what may you expect?

- (A) Deteriorating weather with rain or snow
- (B) Clearing weather, possibly accompanied by high winds
- (C) Clear weather with no wind, but the possibility of rain or snow within 24 hours
- (D) Heavy rain or severe thundershowers

If choice B is selected set score to 1.

40. You are enroute to Sioux City, Iowa on the Missouri River. When would you most likely encounter a frontal thunderstorm?

- (A) Summer
- (B) Winter
- (C) Autumn
- (D) Spring

If choice B is selected set score to 1.

41. How is a navigation light identified on an Army Corps of Engineers navigation map?

- (A) Name and miles from a reference point
- (B) Name and light characteristic
- (C) Light characteristic and miles A.H.P.
- (D) None of the above

If choice A is selected set score to 1.

42. Which topmark shown in illustration D023NG below identifies an isolated danger?

- (A) A
- (B) B
- (C) C
- (D) D

If choice B is selected set score to 1.

43. Under the IALA Buoyage Systems, which is TRUE of the topmark of a red and white vertically-striped buoy?

- (A) It shall be X-shaped
- (B) It shall be a single red cone
- (C) It shall be a single red sphere
- (D) It shall be two black spheres

If choice C is selected set score to 1.

44. Under the U.S. Aids to Navigation System on the Western Rivers, which is TRUE of a preferred channel buoy?

- (A) It shall be solid green
- (B) It shall be solid red
- (C) It shall be horizontally-banded red and green
- (D) It shall be vertically-striped red and white

If choice C is selected set score to 1.

45. Which name is given to the pressure-sensitive element of an aneroid barometer?

- (A) Pressure bellows
- (B) Column of mercury
- (C) Syphon cell
- (D) Constant pressure capsule

If choice C is selected set score to 1.

46. What is the name given to lines on a chart which connect points of equal magnetic variation?

- (A) Magnetic declinations
- (B) Isogonic lines
- (C) Dip lines
- (D) Magnetic latitudes

If choice B is selected set score to 1.

47. The Light List indicates that a light has a nominal range of 10 miles and is 11 feet high. If the visibility is 5 miles and your height of eye is 20 feet, at what approximate distance will you sight the light?

- (A) 6.3 miles
- (B) 7.4 miles
- (C) 8.4 miles
- (D) 9.0 miles

If choice A is selected set score to 1.

48. Which light signal indicates that you may approach the lock?

- (A) Flashing red
- (B) Steady green
- (C) Flashing amber
- (D) Steady amber

If choice C is selected set score to 1.

49. Under the U.S. Aids to Navigation System, what does a lighted buoy with a spherical topmark mark indicate?

- (A) The position of underwater cables
- (B) A hazard to navigation
- (C) Safe water
- (D) The port side of the channel

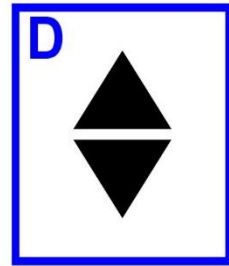
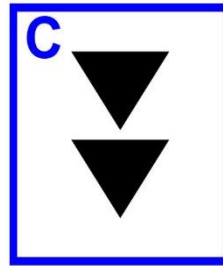
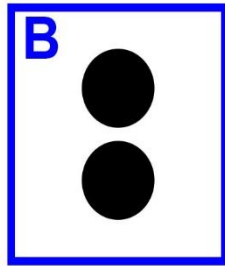
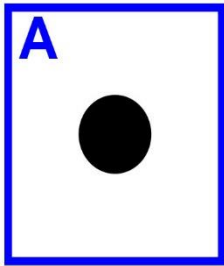
If choice C is selected set score to 1.

50. In which situation is the light characteristic of composite group flashing (2 + 1) used in the Aids to Navigation System on the Western Rivers?

- (A) Only to identify the right descending bank
- (B) On daymarks with no lateral significance
- (C) On preferred-channel buoys
- (D) Only to identify the left descending bank

If choice C is selected set score to 1.

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