U.S.C.G. Merchant Marine Exam

Operator Uninspected Passenger Vessel Near Coastal

Q171 Navigation General Near Coastal

(Sample Examination)

Choose the best answer to the following Multiple-Choice Questions.

1. Which of the following statements is TRUE regarding automatic identification systems (AIS)?

   A. Under no circumstances shall AIS be turned off while underway as this could endanger the vessel and those around her.
   B. AIS is always required to be operating if the vessel is within 100 nautical miles of the coastline.
   C. The master may, at his/her discretion, turn off the AIS if he/she believes that it may compromise the safety or security of the vessel.
   D. AIS is always required to be operating if the vessel is in or in the vicinity of a VTS area.

   Correct answer: C

2. Which information must automatic identification systems (AIS) automatically provide to appropriately equipped shore stations, vessels and aircraft?

   A. Vessel's type
   B. Vessel's course
   C. Navigational status
   D. All of the above

   Correct answer: D

3. Which is TRUE of an occulting light?

   A. The period of darkness exceeds the period of light
   B. The period of light exceeds the period of darkness
   C. There is only a partial eclipse of the light
   D. The periods of light and darkness are equal

   Correct answer: B

4. Which is TRUE of an alternating light?

   A. It is used as a replacement for another light
   B. It shows a light that changes color
   C. It marks an alternate lesser used channel
   D. It shows a light with varying lengths of the lighted period

   Correct answer: B

5. What does a white buoy with an orange rectangle on it indicate?

   A. An exclusion area
   B. Danger
   C. A controlled area
   D. General information

   Correct answer: D

6. You sight a buoy fitted with a double-sphere topmark. If sighted at night, what color and light sequence would you expect to see?

   A. A flashing white light showing a group of two flashes
   B. A quick-flashing green light
   C. A flashing red light showing a group of three flashes
   D. A quick-flashing red light

   Correct answer: A

7. Under the IALA-B Buoyage System, which is TRUE of a conical buoy?

   A. The buoy is red in color
   B. The buoy should be left to port when entering from seaward
   C. The buoy is numbered with an odd number
   D. All of the above

   Correct answer: A

8. Which is TRUE of a nun buoy in the IALA Region B system of buoyage?

   A. It will have an even number
   B. It will be left to port when entering from seaward
   C. It will be green in color
   D. It will be cylindrical in shape

   Correct answer: A

9. Which is TRUE of a vertically-striped buoy?

   A. It may be striped black and green
   B. It may be lighted with a red light
   C. It may be lighted with a white light
   D. It may be striped black and yellow

   Correct answer: C

10. Which of the buoys listed below could be used to mark an anchorage?

    A. White buoy numbered "3"
    B. White buoy with a green top
    C. Yellow buoy lettered "N"
    D. White buoy with orange bands

    Correct answer: C

11. When a light is first seen on the horizon it will disappear again if the height of eye is immediately lowered several feet. When the eye is raised to its former height the light will again be visible. Which term is given to this process?

    A. Checking a light
    B. Bobbing a light
    C. Obscuring a light
    D. Raising a light

    Correct answer: B

12. What is the approximate geographic range of Fenwick Island Light, Delaware, if your height of eye is 42 feet (12.8 meters)? Refer to "Reprints from the LIGHT LISTS AND COAST PILOTS".

    A. 18.3 nm
    B. 10.3 nm
    C. 15.4 nm
    D. 13.1 nm

    Correct answer: A

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

    A. Magnetic latitudes
    B. Isogonic lines
    C. Magnetic declinations
    D. Dip lines

    Correct answer: B

14. Which describes the visible range marked on charts for lights?

    A. The minimum distance at which the light may be seen based on a 12 mile distance to visible horizon
    B. The maximum distance at which a light may be seen in clear weather with 10 miles visibility
    C. The minimum distance at which the light may be seen with infinite visibility
    D. The maximum distance the light may be seen restricted by the height of the light and the curvature of the earth

    Correct answer: B

15. How is the intensity of a light expressed in the Light Lists?

    A. Geographic range
    B. Luminous range
    C. Nominal range
    D. Meteorological range

    Correct answer: C

16. A HYDROLANT warning would normally be sent for all of the following EXCEPT _____.

    A. A report of a ship in distress in mid-ocean
    B. The presence of a large unwieldy tow in congested offshore water
    C. Unexploded ordinance in ocean waters at a depth of 78 fathoms (143 meters)
    D. Extinguishment of Robbins Reef Light in New York City's Upper Bay

    Correct answer: D

17. When changing from a compass course to a true course, which should you apply?

    A. Both variation and deviation
    B. A correction for the direction of current set
    C. Deviation only
    D. Variation only

    Correct answer: A

18. What is the difference between magnetic heading and compass heading called?

    A. Deviation
    B. Compass error
    C. Drift
    D. Variation

    Correct answer: A

19. As a vessel changes course to starboard, which is TRUE concerning the compass card in a magnetic compass?

    A. The card also turns to starboard
    B. It first turns to starboard then counterclockwise to port
    C. The card remains aligned with compass north
    D. The card turns counterclockwise to port

    Correct answer: C

20. Your vessel is proceeding up a channel, and you see a pair of range lights that are in line dead ahead. The chart indicates that the direction of this pair of lights is 283°T, and the variation is 13°E. If the heading of your vessel at the time of the sighting is 278° per standard compass, what is the deviation?

    A. 5°E
    B. 5°W
    C. 8°E
    D. 8°W

    Correct answer: D

21. Your vessel is proceeding up a channel, and you see a pair of range lights that are in line dead ahead. The chart indicates that the direction of this pair of lights is 093°T, and the variation is 6°E. If the heading of your vessel at the time of the sighting is 097° per standard magnetic compass, what is the correct deviation?

    A. 5°E
    B. 5°W
    C. 10°E
    D. 10°W

    Correct answer: D

22. Weather information provided by the National Weather Service (NWS) advisories should be used along with which other source of information?

    A. Weather maps and local knowledge
    B. The Tide Tables and Tidal Current Tables
    C. Any U.S. Coast Pilot
    D. The local Notice to Mariners

    Correct answer: A

23. What is the average speed of the movement of a hurricane following the recurvature of its track?

    A. 5 to 10 knots
    B. 20 to 30 knots
    C. Over 60 knots
    D. 40 to 50 knots

    Correct answer: B

24. Which term is given to a tornado that moves out over the water from land?

    A. A waterspout
    B. A hurricane
    C. A cyclone
    D. A tornado

    Correct answer: A

25. How can you estimate the position of a tropical storm's center?

    A. Using shipboard radar
    B. With a radio weather bulletin or weather fax
    C. Observe the wind direction and apply Buys Ballot's law
    D. All of the above

    Correct answer: D

26. Which term is given to the dense black cumulonimbus clouds surrounding the eye of a hurricane?

    A. Wall clouds
    B. Funnel clouds
    C. Spiral rainbands
    D. Cyclonic spirals

    Correct answer: A

27. Barometer readings in weather reports are given in terms of pressure at which reference location?

    A. Sea level
    B. Washington, D.C.
    C. The broadcasting station
    D. The weather station

    Correct answer: A

28. The needle of an aneroid barometer points to 30.05 on the dial. What does this indicate?

    A. 30.05 millimeters of mercury
    B. The barometric pressure is falling
    C. 30.05 millibars
    D. 30.05 inches of mercury

    Correct answer: D

29. Which are associated with Cumulonimbus clouds?

    A. Dense fog and high humidity
    B. Clear skies with the approach of a cold front
    C. A rapid drop in barometric pressure followed by darkness
    D. Gusty winds, thunder, rain or hail, and lightning

    Correct answer: D

30. Which cloud is described as a low, dark, sheet-like cloud which is associated with continuous precipitation for many hours?

    A. Nimbostratus cloud
    B. Cumulus cloud
    C. Cirrus cloud
    D. Cumulonimbus cloud

    Correct answer: A

31. On a clear, warm day, you notice the approach of a tall cumulus cloud. The cloud top has hard well-defined edges and rain is falling from the dark lower edge. What should you expect if this cloud passes directly overhead?

    A. A sudden decrease in wind speed
    B. The wind will back as it passes
    C. The wind speed will not change as it passes
    D. A sudden increase in wind speed

    Correct answer: D

32. If you observe a rapid fall of barometric pressure, which action should you take?

    A. Prepare for an onset of stormy weather with strong winds
    B. Call the Coast Guard to verify the change
    C. Know that the barometer is not working properly
    D. Contact the NWS or a local radio station

    Correct answer: A

33. What is the standard atmospheric pressure as measured in inches of mercury?

    A. 29.92
    B. 500.0
    C. 760.0
    D. 1013.2

    Correct answer: A

34. How many high waters usually occur each day on the East Coast of the United States?

    A. One
    B. Two
    C. Three
    D. Four

    Correct answer: B

35. A rotary current sets through all directions of the compass. How much time does it take to complete one of these cycles, in a locale off the East coast of the U.S.?

    A. 2 1/2 hours
    B. 3 1/2 hours
    C. 6 1/4 hours
    D. 12 1/2 hours

    Correct answer: D

36. On 10 November 2023 at 2030, you are inbound at Charleston Harbor Entrance Buoy “10” (ACT6611). What is the direction and velocity of the current you are encountering as you pass Buoy “10”? See illustration D058NG.

    A. 0.4kts at 104°T
    B. 2.1kts at 335°T
    C. 0.4kts at 280°T
    D. 2.1kts at 172°T

    Correct answer: A

37. On 14 October 2023, you will be docking at the Southern Branch Elizabeth River, VA at the first low tide. The berth is located between NOAA reference tidal station #8638660 and subordinate station #8639348. What time (LST) will you be docking? See illustration D063NG.

    A. 0225
    B. 0325
    C. 0125
    D. 0300

    Correct answer: A

38. Which defines the height of tide?

    A. The depth of water at a specific time due to tidal effect
    B. The difference between the depth of the water and the high-water tidal level
    C. The difference between the depth of the water and the area's tidal datum
    D. The difference between the depth of the water at high tide and the depth of the water at low tide

    Correct answer: C

39. With respect to a reversing current, when does slack water occur?

    A. When a weak ebb or flood current exists
    B. When winds cause water to back up in a river mouth
    C. When there is little or no horizontal motion of the water
    D. When there is little or no vertical motion of the water

    Correct answer: C

40. While on a course of 349°T, a light bears 13° on the starboard bow at a distance of 10.8 miles. What course should you steer to pass 2.5 miles abeam of the light leaving it to starboard?

    A. 355°T
    B. 346°T
    C. 352°T
    D. 349°T

    Correct answer: D

41. You are steering 019°T, and a light is picked up dead ahead at a distance of 11.6 miles at 0216. You change course to pass the light 3 miles off abeam to port. If you are making 14 knots, what is your ETA at the position 3 miles off the light?

    A. 0307
    B. 0301
    C. 0304
    D. 0258

    Correct answer: C

42. Your vessel is steering a course of 337°psc. Variation for the area is 13°W, and deviation is 4°E. The wind is from the south, producing a 3° leeway. Which true course are you making good?

    A. 331°T
    B. 325°T
    C. 328°T
    D. 349°T

    Correct answer: A

43. Your vessel is steering course 027° per standard magnetic compass (psc), variation for the area is 19°W, and deviation is 2°E. The wind is from the north-northwest, producing a 5° leeway. What true course are you making good?

    A. 049°T
    B. 044°T
    C. 005°T
    D. 015°T

    Correct answer: D

44. You are underway on course 160°T at 10 knots. The current is 210°T at 0.9 knots. What is the course made good?

    A. 156°T
    B. 160°T
    C. 164°T
    D. 169°T

    Correct answer: C

45. Which organization operates the Maritime Differential GPS (DGPS)?

    A. The United States Air Force
    B. The Federal Communication Commission
    C. The International Maritime Organization
    D. The U.S. Coast Guard

    Correct answer: D

46. Which is TRUE of echo-sounders?

    A. They measure the average depth of water to soft bottom
    B. They measure the actual depth of water
    C. They measure the actual depth of water below keel
    D. They measure the average depth from waterline to hard bottom

    Correct answer: C

47. It is unlawful to approach within how many yards of a Northern Right Whale?

    A. 200
    B. 300
    C. 400
    D. 500

    Correct answer: D

48. Vessels should maintain a sharp lookout, especially during December through March, when navigating the Northern Right Whale's only known calving grounds. Where are the calving grounds located?

    A. Maine and Massachusetts
    B. Nova Scotia
    C. California and Mexico
    D. Georgia and NE Florida

    Correct answer: D

49. Which is TRUE as the temperature of the air reaches the dew point?

    A. Fog may form
    B. Water freezes
    C. It begins to snow
    D. Rain must develop

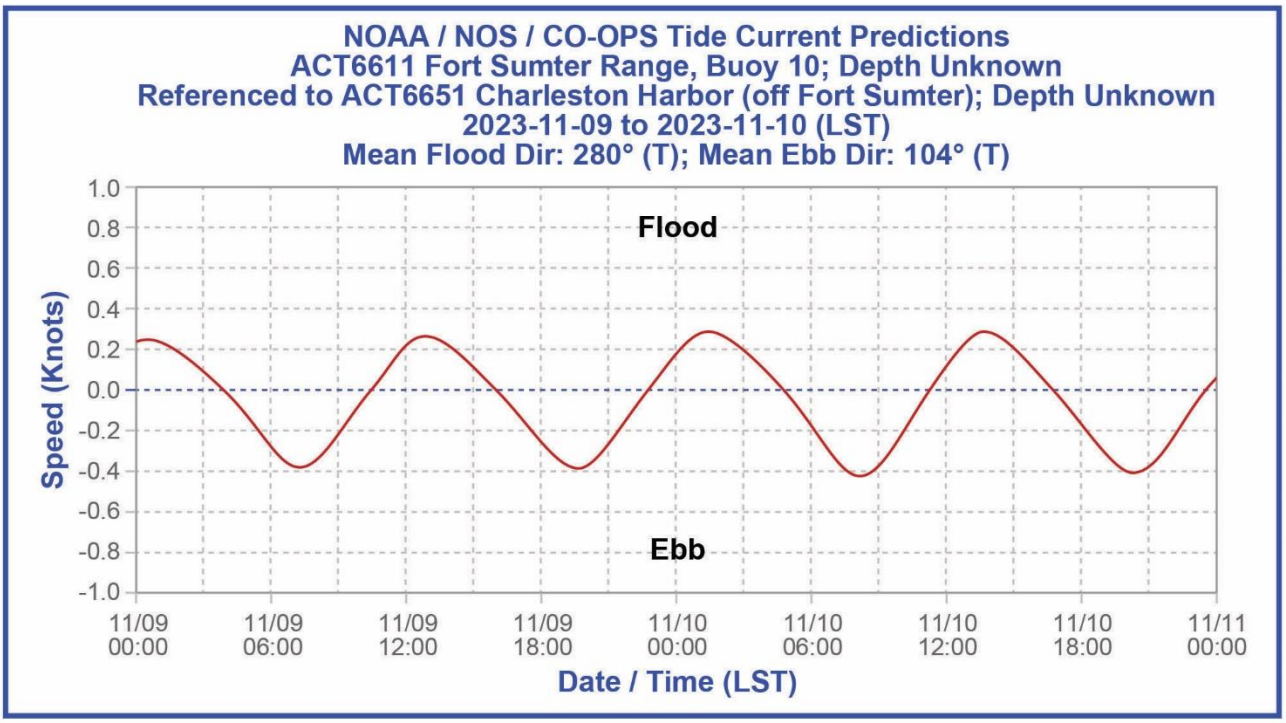
    Correct answer: A

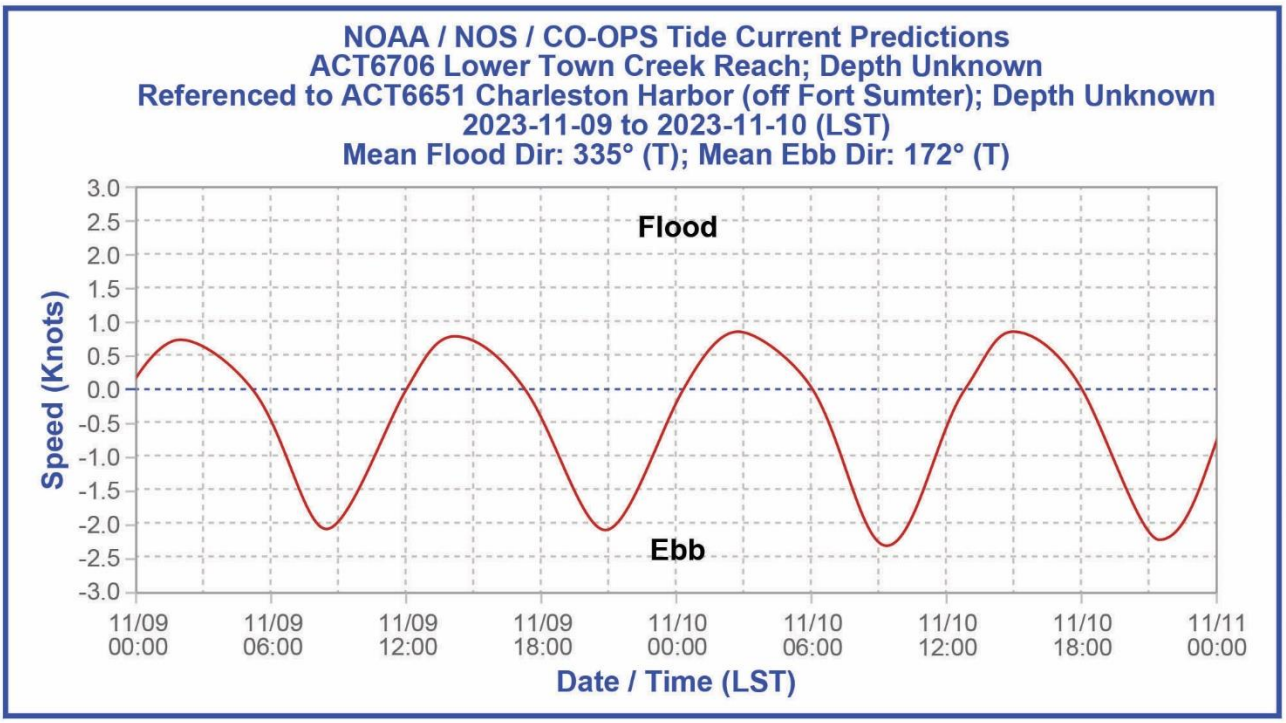
50. Fog forms when the air temperature is at or below _____.

    A. the dew point
    B. 32°F
    C. the dry bulb temperature
    D. the wet bulb temperature

    Correct answer: A

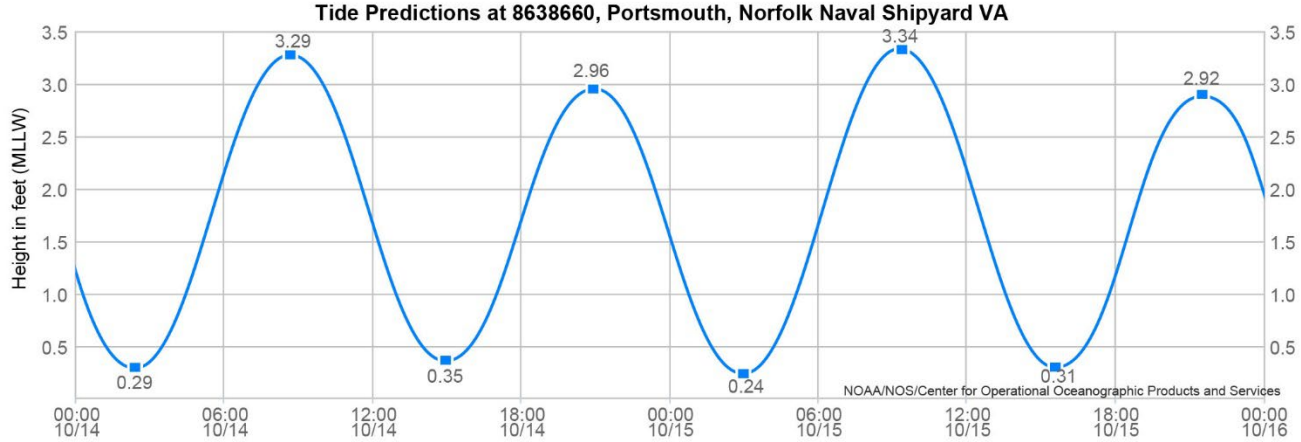
D058NG





D063NG

NOAA/NOS/CO-OPS
Tide Predictions at 8638660, Portsmouth, Norfolk Naval Shipyard VA



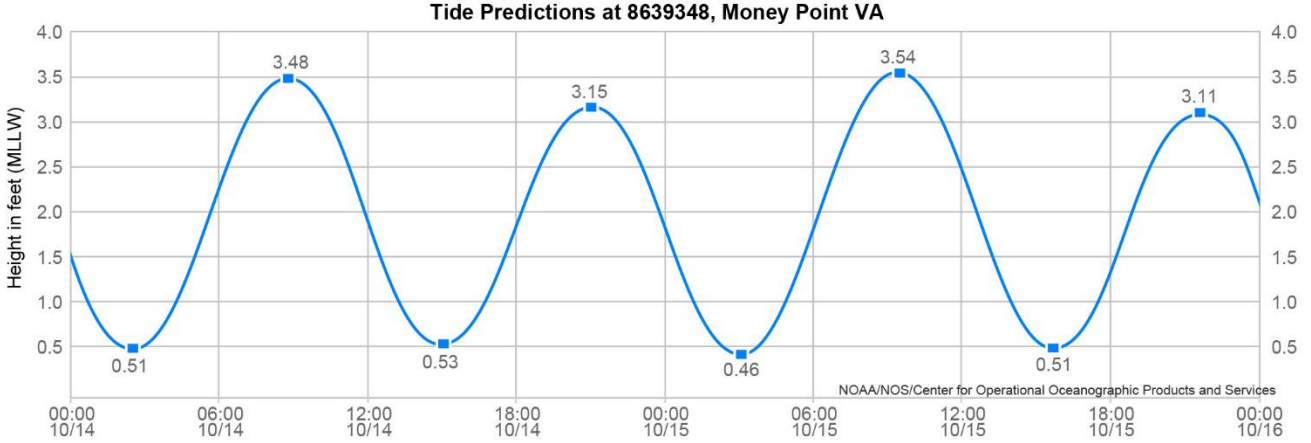
High/Low Tide Prediction Data Listing

Station Name: Portsmouth, Norfolk Naval Shipyard, VA
Action: Daily
Product: Tide Predictions
Start Date & Time: 2023/10/14 00:00
End Date & Time: 2023/10/15 23:59

Source: NOAA/NOS/CO-OPS
Prediction Type: Harmonic
Datum: MLLW
Height Units: Feet
Time Zone: LST

Date	Day	Time	Hgt	Time	Hgt	Time	Hgt	Time	Hgt
2023/10/14	Sat	02:25	0.29 L	08:40	3.29 H	14:58	0.35 L	20:53	2.96 H
2023/10/15	Sun	03:00	0.24 L	09:17	3.34 H	15:37	0.31 L	21:32	2.92 H

NOAA/NOS/CO-OPS
Tide Predictions at 8639348, Money Point VA



High/Low Tide Prediction Data Listing

Station Name: Money Point, VA
Action: Daily
Product: Tide Predictions
Start Date & Time: 2023/10/14 00:00
End Date & Time: 2023/10/15 23:59

Source: NOAA/NOS/CO-OPS
Prediction Type: Harmonic
Datum: MLLW
Height Units: Feet
Time Zone: LST

Date	Day	Time	Hgt	Time	Hgt	Time	Hgt	Time	Hgt
2023/10/14	Sat	02:25	0.51 L	08:48	3.48 H	15:00	0.53 L	21:02	3.15 H
2023/10/15	Sun	03:01	0.46 L	09:25	3.54 H	15:40	0.51 L	21:40	3.11 H

Note: The interval is High/Low, the solid blue line depicts a curve fit between the high and low values and approximates the segments between.
Disclaimer: These data are based upon the latest information available as of the date of your request, and may differ from the published tide tables.