

U.S.C.G. Merchant Marine Exam
Operator Uninspected Passenger Vessel Near Coastal
Q171 Nav General – Near Coastal
(Sample Examination)

Choose the best answer to the following Multiple Choice Questions.

1. All echo-sounders can measure the _____.

- (A) actual depth of water below keel
- (B) average depth from waterline to hard bottom
- (C) actual depth of water
- (D) average depth of water to soft bottom

If choice A is selected set score to 1.

2. You are steaming in a westerly direction along the Gulf Coast. You see ahead of you a lighted buoy showing a red isophase light. Which action should you take?

- (A) Alter course and pass the buoy well off on either side.
- (B) Alter course and leave the buoy nearby on either side.
- (C) Alter course to port and leave the buoy to starboard.
- (D) Alter course to starboard and leave the buoy to port.

If choice C is selected set score to 1.

3. The Light List shows that a navigational light has a nominal range of 15 miles and a height above water of 40 feet (12.2 meters). Your height of eye is 25 feet (7.6 meters) and the visibility is 5 miles. At about what range will you FIRST sight the light?

- (A) 6.2 miles
- (B) 9.5 miles
- (C) 12.9 miles
- (D) 14.2 miles

If choice B is selected set score to 1.

4. The Light List shows a lighted aid to navigation on the left bank. This means that the light can be seen on the starboard side of a vessel under which circumstances?

- (A) The vessel is crossing the river
- (B) The vessel is proceeding towards sea
- (C) The vessel is descending the river
- (D) The vessel is ascending the river

If choice D is selected set score to 1.

5. The climate of the northern coast of the Gulf of Mexico is _____.

- (A) has an east coast marine type of climate
- (B) varies from warm to subtropical
- (C) is a warm marine type of climate
- (D) is humid and subtropical throughout the year

If choice C is selected set score to 1.

6. What does the period of a lighted aid to navigation refer to?

- (A) The length of time between flashes of the light
- (B) The time required for the longest flash of each cycle
- (C) The official date of construction or establishment
- (D) The time required for the light to complete each cycle

If choice D is selected set score to 1.

7. Two beacons form a range in the direction of $221.5^{\circ}T$. The range is seen in line from your vessel bearing 223° per gyrocompass. The variation in the area is $4^{\circ}E$. What is the error of your gyrocompass?

- (A) $1.5^{\circ}W$
- (B) $2.5^{\circ}W$
- (C) $5.5^{\circ}W$
- (D) $2.5^{\circ}E$

If choice A is selected set score to 1.

8. Which corrector will compensate for the deviation which is maximum on intercardinal compass headings

- (A) Transverse magnets
- (B) Flinders bar
- (C) Fore-and-aft magnets
- (D) Quadrantal spheres

If choice D is selected set score to 1.

9. The buoy symbol printed on your chart is leaning to the northeast. What does this indicate?

- (A) You should stay to the north or east of the buoy
- (B) You should stay to the west or south of the buoy
- (C) The buoy is a major lighted buoy
- (D) Nothing special for navigational purposes

If choice D is selected set score to 1.

10. When would cloud formations be minimal?

- (A) When the surface temperature and temperature aloft are equal
- (B) When the barometric pressure is very low
- (C) When the relative humidity is very high
- (D) When the surface temperature and temperature aloft differ greatly

If choice A is selected set score to 1.

11. You are on course 079°T, speed 11.2 knots. At 0904 you see a daymark bearing 078°T at a range of 4.6. If you change course at 0910 to leave the daymark abeam to starboard at 0.5 mile, at what time will the daymark be abeam?

- (A) 0928
- (B) 0918
- (C) 0935
- (D) 0923

If choice A is selected set score to 1.

12. In mid-ocean, the characteristics of a wave are determined by three factors. What is NOT one of these factors?

- (A) Fetch
- (B) Wind velocity
- (C) Length of time a wind has been blowing
- (D) Effect of the moon's gravity

If choice D is selected set score to 1.

13. When is an air mass termed "warm"?

- (A) If the mass is above 70°F
- (B) If it originated in a high pressure area
- (C) If it originated in a low pressure area
- (D) If the ground over which it moves is cooler than the air

If choice D is selected set score to 1.

14. Which condition(s) is (are) necessary for the formation of dew?

- (A) Available nuclei in the air
- (B) Moderate winds
- (C) A surface warmer than the dew point of the air
- (D) Clear skies

If choice D is selected set score to 1.

15. What is the primary source of the earth's weather?

- (A) The sun
- (B) The solar system
- (C) The oceans
- (D) The moon

If choice A is selected set score to 1.

16. How may a spherical buoy be identified?

- (A) It may be green
- (B) It may be red
- (C) It may be lettered
- (D) It may be numbered

If choice C is selected set score to 1.

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

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

If choice B is selected set score to 1.

18. With respect to failure warnings and status indications, GPS receivers should provide, at a minimum, _____.

- (A) an indication of a change in satellite configuration
- (B) a cross-track error alarm
- (C) a warning of loss of position
- (D) an alarm if engine speed is suddenly reduced

If choice C is selected set score to 1.

19. When do Spring tides occur?

- (A) When the Sun and Moon are in quadrature
- (B) When the Moon's declination is maximum and opposite to that of the Sun
- (C) When the Moon is new or full
- (D) When the Moon is in its first quarter or third quarter phase

If choice C is selected set score to 1.

20. When do neap tides occur?

- (A) When the Sun, Moon, and Earth are in line
- (B) When the Moon is at quadrature
- (C) At approximately 28-day intervals
- (D) At a new or full Moon

If choice B is selected set score to 1.

21. When recording the wind direction in the weather log, which information would you report?

- (A) The duration of the maximum gust of wind
- (B) The direction the wind is blowing toward
- (C) The direction the wind is blowing from
- (D) The wind chill factor

If choice C is selected set score to 1.

22. A Doppler speed log indicates speed through the water _____.

- (A) in the volume reverberation mode
- (B) only when there is no current
- (C) in the bottom return mode
- (D) at all times

If choice A is selected set score to 1.

23. In the IALA Buoyage System, preferred-channel-to-port or preferred-channel-to-starboard buoys, which is TRUE when fitted with lights?

- (A) The light must be a long flashing light
- (B) The light must be a composite group flashing (2 + 1) light
- (C) The light shall be group flashing
- (D) The light will be quick flashing light

If choice B is selected set score to 1.

24. To avoid error, how should you read the scale of an aneroid barometer?

- (A) With your eye to the left of the pointer
- (B) With your eye slightly above the meniscus
- (C) With your eye directly in front of the pointer
- (D) With your eye to the right of the pointer

If choice C is selected set score to 1.

25. When adjusting a magnetic compass for error, which is TRUE concerning the deviation table?

- (A) Construct the deviation table before the quadrantal correctors are placed on the compass
- (B) Construct the deviation table before correcting for any deviation
- (C) Construct the table after adjusting the fore-and-aft permanent magnets
- (D) Construct the deviation table after correcting for variation

If choice C is selected set score to 1.

26. A mid-channel buoy, may show which light?

- (A) A Morse (A) white light
- (B) An occulting green light
- (C) A flashing red light
- (D) A fixed red light

If choice A is selected set score to 1.

27. A List of Lights entry (L Fl) is a single flashing light which shows a long flash of not less than which duration?

- (A) 1.0 second duration
- (B) 1.5 seconds duration
- (C) 2.0 seconds duration
- (D) 3.0 seconds duration

If choice C is selected set score to 1.

28. What is the standard atmospheric pressure in millibars?

- (A) 760.0
- (B) 938.9
- (C) 1000.0
- (D) 1013.2

If choice D is selected set score to 1.

29. Under the U.S. Aids to Navigation System used on the Western Rivers, which is TRUE of the aids to navigation lights on the right descending bank?

- (A) They are white or red lights
- (B) They can only be green lights
- (C) They can only be white lights
- (D) They are white or green lights

If choice D is selected set score to 1.

30. Your vessel has a draft of 23 feet. On 23 June 1983 you wish to pass over a temporary obstruction near Beaufort, SC, that has a charted depth of 22 feet. Allowing for a safety margin of 3 feet, what is the earliest time after 1600 DST (ZD +4) that this passage can be made?

- (A) 1750
- (B) 1815
- (C) 1855
- (D) 1944

If choice A is selected set score to 1.

31. While upbound through Memphis, the weather report on the TV news indicates that a cold front will cross western Kentucky and Tennessee the next morning. What weather should accompany this front?

- (A) Overcast with steady, light rain or drizzle
- (B) Scattered clouds with light to moderate southeasterly winds and possibly fog
- (C) Gusting winds shifting to the northwest with thunderstorms
- (D) Light, southerly winds; high humidity and possibly fog

If choice C is selected set score to 1.

32. Where can complete information on weather broadcasts throughout the world be found?

- (A) The Coast Pilot Volume 2
- (B) The Notice to Mariners
- (C) The Selected Worldwide Marine Weather Broadcasts
- (D) The Amver worldwide voluntary reporting system

If choice C is selected set score to 1.

33. You are at anchor in the anchorage at the entrance to Delaware Bay. You weigh anchor at 1445 DST (ZD +4) on 24 July 1983 and proceed northbound enroute to Philadelphia at a speed of 10 knots. Which of the following should you expect to experience?

- (A) a flood current from Ship John Shoal Lt. to Philadelphia
- (B) an ebb current north of New Castle, DE
- (C) a flood current the entire trip
- (D) a weak flood between Reedy Island and Edgemoor

If choice D is selected set score to 1.

34. You desire to make good a true course of 203° . The variation is 19°E , magnetic compass deviation is 2°W , and gyrocompass error is 1°E . A westerly wind produces a 3° leeway. What is the course to steer per standard magnetic compass to make the true course good?

- (A) 223°psc
- (B) 189°psc
- (C) 183°psc
- (D) 210°psc

If choice B is selected set score to 1.

35. Which cloud commonly produces a halo about the Sun or Moon?

- (A) Cirrostratus
- (B) Altocumulus
- (C) Altostratus
- (D) Cirrocumulus

If choice A is selected set score to 1.

36. Information about the direction and velocity of rotary tidal currents can be found in which publication?

- (A) Mariner's Guide
- (B) Nautical Almanac
- (C) Tidal Current Tables
- (D) Tide Tables

If choice C is selected set score to 1.

37. Which type of GPS receiver has at least four channels to process information from several satellites simultaneously?

- (A) Multiplex
- (B) Sequential
- (C) Continuous
- (D) None of the above

If choice C is selected set score to 1.

38. Determine the duration of the first PM slack water on 3 March 1983, east of the Statue of Liberty, when the current is less than 0.1 knot.

- (A) 10 minutes
- (B) 13 minutes
- (C) 16 minutes
- (D) 19 minutes

If choice B is selected set score to 1.

39. Which publication lists Class I and II private aids to navigation in or along navigable waters of the United States?

- (A) Sailing Directions
- (B) List of Private Aids
- (C) Light List
- (D) Aids to Navigation Manual

If choice C is selected set score to 1.

40. When considering currents, which defines the term set?

- (A) It is the direction from which it flows
- (B) It is the velocity in knots
- (C) It is the direction towards which it flows
- (D) It is the estimated current

If choice C is selected set score to 1.

41. Which defines an isotherm?

- (A) A line on a weather map connecting equal points of both temperature and pressure
- (B) An instrument that measures the climatological effects of temperature
- (C) A line connecting points of equal barometric pressure on a weather map
- (D) A line connecting points of equal temperature on a weather map

If choice D is selected set score to 1.

42. What causes permanent magnetism on a vessel?

- (A) The horizontal component of the earth's magnetic field acting on the horizontal soft iron
- (B) The vertical component of the earth's magnetic field acting on the vertical soft iron
- (C) The operation of electrical equipment and generators on board ship
- (D) The earth's magnetic field affecting the ship's hard iron during construction

If choice D is selected set score to 1.

43. In which source could you find the vertical clearance of a bridge on the Ohio River?

- (A) Notice to Mariners
- (B) Light List of the Mississippi River System
- (C) Coast Pilot of the Gulf of Mexico
- (D) Great Lakes Pilot

If choice B is selected set score to 1.

44. In illustration D039NG below, which number indicates cirrus clouds?

- (A) 1
- (B) 4
- (C) 5
- (D) 7

If choice A is selected set score to 1.

45. You will find daily information about the duration of slack water in a port on the Atlantic Coast in which publication?

- (A) Tidal Current Tables
- (B) Sailing Directions
- (C) American Practical Navigator
- (D) Tide Tables

If choice A is selected set score to 1.

46. What indicates a buoy that should be left to port when entering from seaward? (U.S. Aids to Navigation System)

- (A) Odd number
- (B) Group flashing characteristic
- (C) Nun shape
- (D) White light

If choice A is selected set score to 1.

47. What kind of pressure systems travel in tropical waves?

- (A) Subsurface pressure
- (B) Terrastatic pressure
- (C) Low pressure
- (D) High pressure

If choice C is selected set score to 1.

48. What publication has information on the climate, distances, navigation regulations, outstanding landmarks, channels and anchorages of Long Island Sound?

- (A) Light List
- (B) Sailing Directions
- (C) Pilot Chart
- (D) Coast Pilot

If choice D is selected set score to 1.

49. 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.

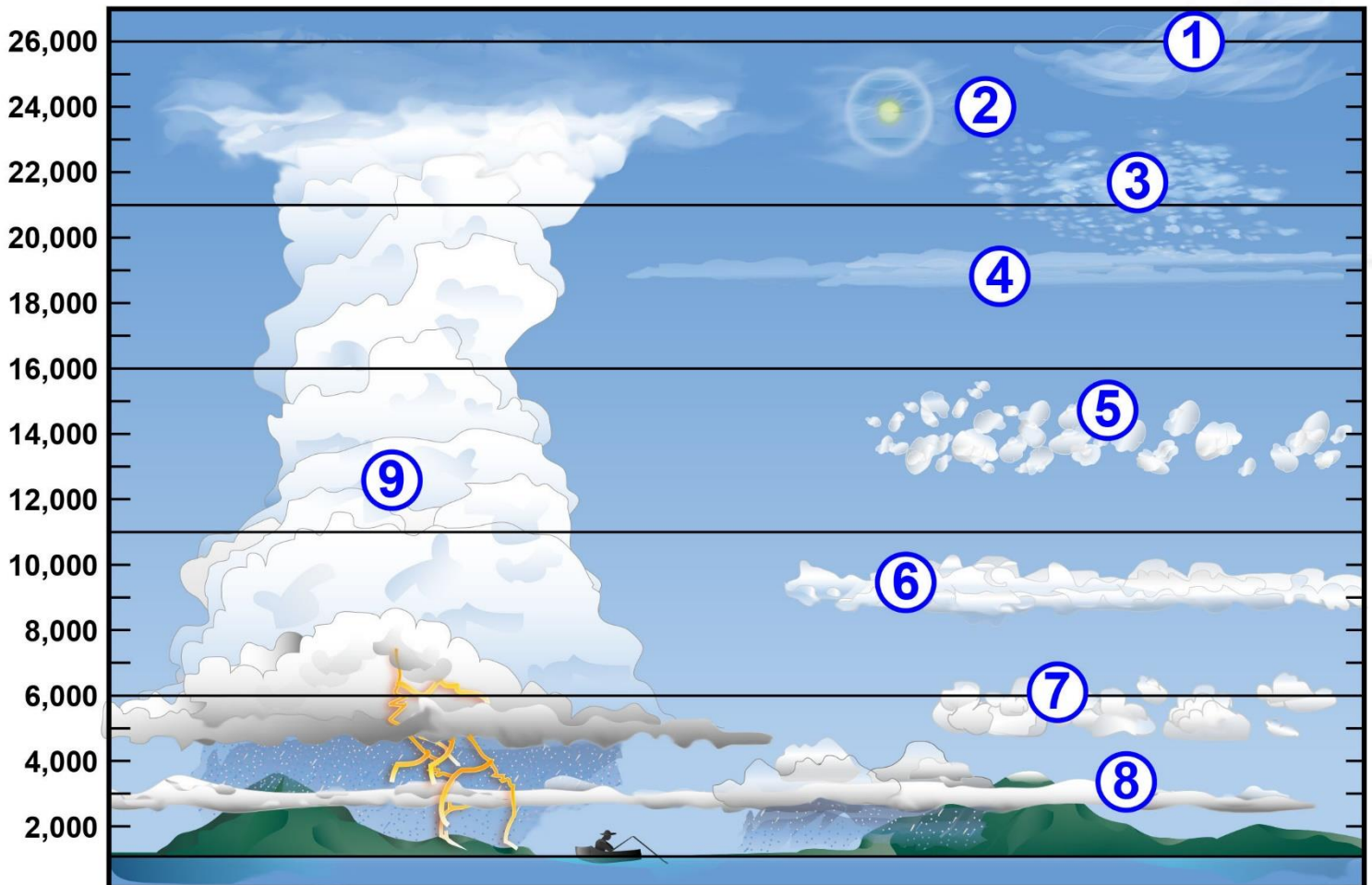
50. You are planning to enter an unfamiliar U.S. port. Which publication provides information about channel depths, dangers, obstructions, anchorages, and marine facilities available in that port?

- (A) Sailing Directions
- (B) Notice to Mariners
- (C) Coast Pilot
- (D) American Practical Navigator

If choice C is selected set score to 1.

D039NG

Altitude (in feet)



Adapted for testing purposes only PRETOR-PINNEY, The Cloudspotter's Guide,
The Science, History, and Culture of Clouds
Copyright © 2006 by Gavin Pretor-Pinney
Further reproduction prohibited without permission

D045NG

