

U.S.C.G. Merchant Marine Exam
Second/Third Mate Unlimited Tonnage
Q111 Deck General
(Sample Examination)

Choose the best answer to the following Multiple Choice Questions.

1. A marine chemist issues gas free certificates and is certified by which organization?

- (A) Mine Safety Appliance Association
- (B) American Chemical Society
- (C) National Fire Protection Association
- (D) Marine Chemists Association

If choice C is selected set score to 1.

2. A cargo of fuel oil is loaded whose temperature is 66°F. API gravity is 36°. The volume correction factor (VCF) is .0005. A cargo temperature of 80°F is expected at the discharge port. If 9,000 barrels were loaded, how many gallons would you expect to unload?

- (A) 375,354
- (B) 380,646
- (C) 491,535
- (D) 498,465

If choice B is selected set score to 1.

3. To determine the number of able seamen required on an inspected vessel, you should check the _____.

- (A) Safety of Life at Sea Certificate
- (B) Certificate of Inspection
- (C) operations manual
- (D) Load Line Certificate

If choice B is selected set score to 1.

4. If you are bunkering and you close off one tank in the line of tanks being filled, the rate of flow to other open tanks on the same line will _____.

- (A) stop
- (B) increase
- (C) remain constant
- (D) decrease

If choice B is selected set score to 1.

5. In handling break bulk hazardous materials, it is forbidden to use _____.

- (A) slings
- (B) cargo nets
- (C) metal bale hooks
- (D) pallets

If choice C is selected set score to 1.

6. A load line is assigned by _____.

- (A) the U.S. Army Corps of Engineers
- (B) the U.S. Customs
- (C) a recognized classification society approved by the U.S. Coast Guard
- (D) the U.S. Department of Energy

If choice C is selected set score to 1.

7. To what chemical family does ethylene oxide belong?

- (A) Esters
- (B) Glycol ethers
- (C) Alcohols
- (D) Alkylene oxides

If choice D is selected set score to 1.

8. On a vessel, constructed after 1970, carrying grades A, B, C or D cargoes, what can NOT segregate enclosed spaces where sources of vapor ignition are normally present from cargo tanks?

- (A) pump rooms
- (B) cofferdams
- (C) tanks used to carry liquids having a flash point of 150°F or above
- (D) galleys

If choice D is selected set score to 1.

9. The next-to-last shot of an anchor cable is usually painted _____.

- (A) white
- (B) yellow
- (C) red
- (D) international orange

If choice B is selected set score to 1.

10. A U.S. Coast Guard icebreaker, while escorting ships in ice, may sound four short and one long blasts on the whistle to indicate that the icebreaker _____.

- (A) has become beset in fast ice
- (B) is increasing the distance between vessels
- (C) is increasing speed; watch for broken ice
- (D) has its engines full astern

If choice A is selected set score to 1.

11. A disk with a horizontal line through its center, equivalent to the summer load line, is called the _____.

- (A) maximum allowable draft mark
- (B) tonnage mark
- (C) deadrise mark
- (D) Plimsoll mark

If choice D is selected set score to 1.

12. On an inspected vessel, which abbreviation refers to the horizontal distance between perpendiculars taken at the forward-most and the after-most points on the waterline at her deepest operating draft?

- (A) LBP
- (B) LWL
- (C) LLL
- (D) LOA

If choice A is selected set score to 1.

13. What certificate verifies that a liquified gas tanker complies with the requirements with regard to their structure, equipment, fittings, arrangements, and materials?

- (A) International Oil Prevention Certificate
- (B) Certificate for the Carriage of Noxious Liquid Substances
- (C) Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk
- (D) Cargo Ship Safety Construction

If choice D is selected set score to 1.

14. The force acting on a single cargo runner which is vertically lifting or lowering a load is greatest when _____.

- (A) raising the load at constant speed
- (B) decelerating when raising the load
- (C) lowering the load at constant speed
- (D) decelerating when lowering the load

If choice D is selected set score to 1.

15. (2.8.2.6A-18) What is the name of tackle number 3 as shown in illustration D029DG below?

- (A) Gun tackle
- (B) Double whip
- (C) Single luff tackle
- (D) 1-2 purchase

If choice C is selected set score to 1.

16. Which statement(s) is/are TRUE concerning crane cargo operations?

- (A) Lifting points on all equipment must be safely checked prior to commencing a lift.
- (B) Cargo loaded into vehicles and/or containers prior to lifting needs to be properly secured so as to prevent shifting during transport.
- (C) Never exceed crane manufacturer's limits concerning the safe working loads of cargo jibs.
- (D) All the above

If choice D is selected set score to 1.

17. The Certificate of Freeboard is the _____.

- (A) Certificate of Inspection
- (B) Forecastle Card
- (C) Admeasurer's Certificate
- (D) Load Line Certificate

If choice D is selected set score to 1.

18. Chafing gear is used to _____.

- (A) protect fiber rope from abrasion
- (B) pick up heavy loads
- (C) anchor the boat
- (D) strengthen mooring lines

If choice A is selected set score to 1.

19. Which is a method used to make an eye in a bight of line where it cannot be spliced?

- (A) seizing
- (B) serving
- (C) braiding
- (D) plaiting

If choice A is selected set score to 1.

20. Which safety check(s) should be made before letting go the anchor?

- (A) See that the anchor is clear of obstructions.
- (B) See that the chain is all clear.
- (C) See that the wildcat is disengaged.
- (D) All of the above

If choice D is selected set score to 1.

21. When handling cargo, the majority of cargo gear breakdowns is due to _____.

- (A) compression bending of the boom
- (B) extension failure of the boom
- (C) topping lift failures
- (D) guy failures

If choice D is selected set score to 1.

22. You are on a multiple-product tankship and scheduled to load a cargo classed as an aromatic amine. This cargo is incompatible with cargoes classed as _____.

- (A) phenols
- (B) ketones
- (C) organic anhydrides
- (D) esters

If choice C is selected set score to 1.

23. If two mooring lines are to be placed on the same bollard, which method is BEST?

- (A) Place the eye from either line on the bollard, and then bring the eye of the other line up through the eye of the first, and place it on the bollard.
- (B) Place the eye from the forward line on the bollard and then place the eye from the second line directly over the first.
- (C) It makes no difference how the lines are placed.
- (D) Place both eyes on the bollard, in any manner, but lead both lines to the same winch head on the vessel and secure them on the winch.

If choice A is selected set score to 1.

24. An advantage of nylon rope over manila rope is that nylon rope _____.

- (A) can be stored on decks exposed to sunlight
- (B) can hold a load even when a considerable amount of the yarns have been abraded
- (C) gives audible warning of overstress whereas manila does not
- (D) can be used in conjunction with wire or spring-lay rope

If choice B is selected set score to 1.

25. Ice concentration is measured in tenths. What concentration range of ice corresponds to "Open Pack"?

- (A) 1 - 3 tenths
- (B) 4 - 6 tenths
- (C) < 1 tenth
- (D) 7 - 8 tenths

If choice B is selected set score to 1.

26. A vessel spotted at 45° relative can be reported as _____.

- (A) on the starboard beam
- (B) broad on the starboard bow
- (C) 4 points abaft the starboard beam
- (D) 4 points forward of starboard bow

If choice B is selected set score to 1.

27. What should look-outs report?

- (A) Discolored water
- (B) Floating objects
- (C) Shoals
- (D) All of the above

If choice D is selected set score to 1.

28. When anchoring, good practice requires 5 to 7 fathoms of chain for each fathom of depth. In deep water you should use _____.

- (A) more chain for each fathom of depth
- (B) the same ratio
- (C) two anchors with the same ratio of chain
- (D) less chain for each fathom of depth

If choice D is selected set score to 1.

29. In a following sea, a wave has overtaken your vessel and thrown the stern to starboard. To continue along your original course, you should _____.

- (A) use more left rudder
- (B) decrease speed
- (C) increase speed
- (D) use more right rudder

If choice D is selected set score to 1.

30. Which statement is TRUE concerning the vessel's slipstream?

- (A) It has no effect on the steering of the vessel.
- (B) Its velocity is the same as that of the wake.
- (C) The propeller gives it a helical motion.
- (D) It has no effect on the rudder when the helm is amidships.

If choice C is selected set score to 1.

31. When preparing to hoist the anchor, you should FIRST _____.

- (A) take the riding pawl off the chain
- (B) put the brake in the off position
- (C) take off the chain stopper
- (D) engage the wildcat

If choice D is selected set score to 1.

32. When a vessel is swinging from side to side off course due to quartering seas, the vessel is _____.

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

If choice C is selected set score to 1.

33. When the period of beam seas equals the natural rolling period of a vessel, what will most likely occur?

- (A) Excessive pitching
- (B) Excessive yawing
- (C) Excessive rolling
- (D) No change should be evident

If choice C is selected set score to 1.

34. The effect of wind on exposed areas of the vessel is most noticeable when _____.

- (A) backing
- (B) going slow ahead
- (C) turning
- (D) going full ahead

If choice A is selected set score to 1.

35. Regulations require that cargo pumprooms handling grades D and/or E liquid cargo only shall be fitted with at LEAST how many ducts extended to the weather deck?

- (A) 1
- (B) 2
- (C) 3
- (D) 4

If choice B is selected set score to 1.

36. You are drifting in a locale where there is no current. As a rule, your vessel will lie _____.

- (A) bow to the wind
- (B) with the wind on the quarter
- (C) stern to the wind
- (D) beam to the wind

If choice D is selected set score to 1.

37. You are on a course of 000°T and put the rudder right 30°. In which direction will the transfer be measured?

- (A) 000°T
- (B) 090°T
- (C) 180°T
- (D) 270°T

If choice B is selected set score to 1.

38. What form of ice is of land origin?

- (A) Shuga
- (B) Bergy bit
- (C) Spicule
- (D) Floe

If choice B is selected set score to 1.

39. Which vessel is most likely to be loaded full but not down?

- (A) A bulk carrier loaded with heavy ore
- (B) A bulk carrier loaded with steel
- (C) A tanker loaded with heavy grain
- (D) A break bulk vessel loaded with palletized cargo

If choice D is selected set score to 1.

40. According to the Chemical Data Guide, what is the Reid Vapor Pressure of tert-butylamine?

- (A) 11 (psig)
- (B) 12 (psig)
- (C) 13 (psig)
- (D) 14 (psig)

If choice A is selected set score to 1.

41. Which of the following would be a good extinguishing agent for a grade B product of 1,3-Pentadiene?

- (A) Water
- (B) Low Velocity Fog
- (C) High Velocity Fog
- (D) Foam

If choice D is selected set score to 1.

42. Which spaces are required to be segregated from cargo tanks carrying grades A, B, C, or D cargoes?

- (A) Navigation spaces
- (B) Pump rooms
- (C) Cofferdams
- (D) Enclosed deck spaces

If choice A is selected set score to 1.

43. Which of the following is classified as a flammable liquid?

- (A) Mineral spirits
- (B) Bunker C
- (C) Butane
- (D) Methyl alcohol

If choice D is selected set score to 1.

44. Which of the signals listed is required to be displayed during the day while bunkering?

- (A) A yellow flag
- (B) A red light
- (C) A red and yellow flag
- (D) A red flag

If choice D is selected set score to 1.

45. A precaution you should take before bunkering is to _____.

- (A) close the lids on the vents
- (B) plug the vents
- (C) plug the sounding pipes
- (D) plug the scuppers

If choice D is selected set score to 1.

- 46.** You are on a tankship discharging oil. When all of the oil that the main cargo pumps can handle is pumped out of a tank, the remainder is _____.
- (A) stripped out and pumped directly ashore after all the tanks have been emptied by the main pumps
 - (B) gravitated to the centers from the wings and pumped out with the main pumps
 - (C) stripped to one tank and then pumped out with the main pumps
 - (D) stripped out and pumped directly ashore into the mainline as the remaining cargo tanks are pumped out with the main pumps

If choice C is selected set score to 1.

- 47.** The vapor pressure of a substance _____.
- (A) increases with the temperature
 - (B) is not affected by temperature
 - (C) decreases as temperature increases
 - (D) may increase or decrease as the temperature rises

If choice A is selected set score to 1.

- 48.** When loading a tanker, you should _____.
- (A) load only one tank at a time
 - (B) close valves by closing them down, reopening one or two turns, and re-closing
 - (C) keep the seamen on watch on standby in the mess room
 - (D) keep a strain on the loading hoses

If choice B is selected set score to 1.

- 49.** Which part of the inert gas system is designed to relieve sudden large overpressures that exceed the capacity of the mechanical P/V valves?
- (A) Pressure control valve
 - (B) Liquid filled P/V breaker
 - (C) Isolation valve
 - (D) Deck water seal

If choice B is selected set score to 1.

- 50.** The purpose of inert gas systems aboard tank vessels is to _____.
- (A) allow sufficient oxygen in the tank to sustain life
 - (B) prevent outside air from entering the tank
 - (C) provide increase in cargo discharge pressure
 - (D) comply with double hull pollution prevention regulations

If choice B is selected set score to 1.

51. A flame screen _____.

- (A) permits the passage of vapor but not of flame
- (B) permits vapors to exit but not enter a tank
- (C) prevents the passage of flammable vapors
- (D) prevents inert gas from leaving a tank

If choice A is selected set score to 1.

52. The most likely location for a liquid cargo fire to occur on a tanker would be _____.

- (A) at the main deck manifold
- (B) in the pumproom
- (C) in the midships house
- (D) at the vent header

If choice B is selected set score to 1.

53. How should cargo tank hatches be protected when the ullage opening is open and the tank NOT gas free?

- (A) With warning signs
- (B) With pressure-vacuum relief valves
- (C) With flame screens
- (D) With gooseneck vents

If choice C is selected set score to 1.

54. The only portable electrical equipment permitted in a compartment which is not gas free is a lamp that is _____.

- (A) approved explosion proof
- (B) self-contained
- (C) battery fed
- (D) All of the above

If choice D is selected set score to 1.

55. Which document is NOT required by law to be posted aboard a vessel?

- (A) Muster List
- (B) Certificate of Inspection
- (C) Officer's licenses
- (D) Official Crew List

If choice D is selected set score to 1.

56. Safety equipment on board vessels must be approved by the _____.

- (A) Safety Standards Bureau
- (B) National Safety Council
- (C) U.S. Coast Guard
- (D) Occupational Safety and Health Administration (OSHA)

If choice C is selected set score to 1.

57. The international body responsible for drafting the convention prohibiting marine pollution (MARPOL) is the _____.

- (A) Association of Seafaring Nations
- (B) Maritime Advisory Council
- (C) International Association of Shipping
- (D) International Maritime Organization

If choice D is selected set score to 1.

58. Which international body is responsible for drafting the convention prohibiting marine pollution (MARPOL) ?

- (A) International Association of Shipping
- (B) International Maritime Organization
- (C) Association of Seafaring Nations
- (D) Maritime Advisory Council

If choice B is selected set score to 1.

59. A tankerman who permits or causes oil to go into a navigable waterway may be federally punished with which of the following?

- (A) fine
- (B) imprisonment
- (C) suspension or revocation of tankerman's document
- (D) All of the above

If choice D is selected set score to 1.

60. Your oceangoing vessel is required to have a waste management plan. This plan must be in writing and describe procedures for _____.

- (A) reducing the amount of shipboard waste
- (B) collecting and discharging garbage
- (C) segregating the different types of shipboard waste
- (D) disposing waste from marine sanitation devices

If choice B is selected set score to 1.

61. Regardless of local requirements, when in a U.S. port, all oil spills must be reported to which of the following agencies?

- (A) National Response Center (USCG)
- (B) Environmental Protection Agency
- (C) Minerals Management Service
- (D) All of the Above

If choice A is selected set score to 1.

62. You are preparing to load fuel oil on a vessel of 150 gross tons constructed after June 30, 1974. Before loading, you must check that the fuel oil tank vents _____.

- (A) are not obstructed by on-deck cargo
- (B) are opened and the flame screen replaced
- (C) have a fire extinguisher within the immediate area
- (D) have portable containment capacity for at least 5 gallons

If choice D is selected set score to 1.

63. A vessel to which Annex V to MARPOL 73/78 applies is located 10 nautical miles from the nearest land. Which type of garbage is prohibited from being discharged?

- (A) Paper ground to less than 1"
- (B) Food waste, not comminuted or ground
- (C) Rags ground to less than 1"
- (D) None of the above

If choice B is selected set score to 1.

64. How many months after its expiration date may a Coast Guard credential be renewed without retaking the complete exam?

- (A) 1 month
- (B) 6 months
- (C) 12 months
- (D) 24 months

If choice C is selected set score to 1.

65. What is the period of validity of a Merchant Mariner Credential?

- (A) 2 years
- (B) 5 years
- (C) 3 years
- (D) 1 year

If choice B is selected set score to 1.

66. Which document lists all the lifesaving equipment required for a vessel?

- (A) Certificate of Inspection
- (B) Certificate of Registry
- (C) American Bureau of Shipping Classification Certificate
- (D) International Convention for the Safety of Life at Sea Certificate

If choice A is selected set score to 1.

67. Where would you find a list of the lifesaving equipment onboard your supply boat?

- (A) Muster List ("Station Bill")
- (B) U.S. Coast Guard Regulations
- (C) Ship's Articles
- (D) Certificate of Inspection

If choice D is selected set score to 1.

68. All of the following records are usually maintained by the watch-standing officers aboard a vessel EXCEPT the _____.

- (A) official logbook
- (B) chronometer error book
- (C) deck logbook
- (D) compass record book

If choice A is selected set score to 1.

69. Which item must be entered in the official log?

- (A) Drafts upon leaving port
- (B) All engine orders
- (C) Number of cargo gangs on board
- (D) Names of night mates and engineers

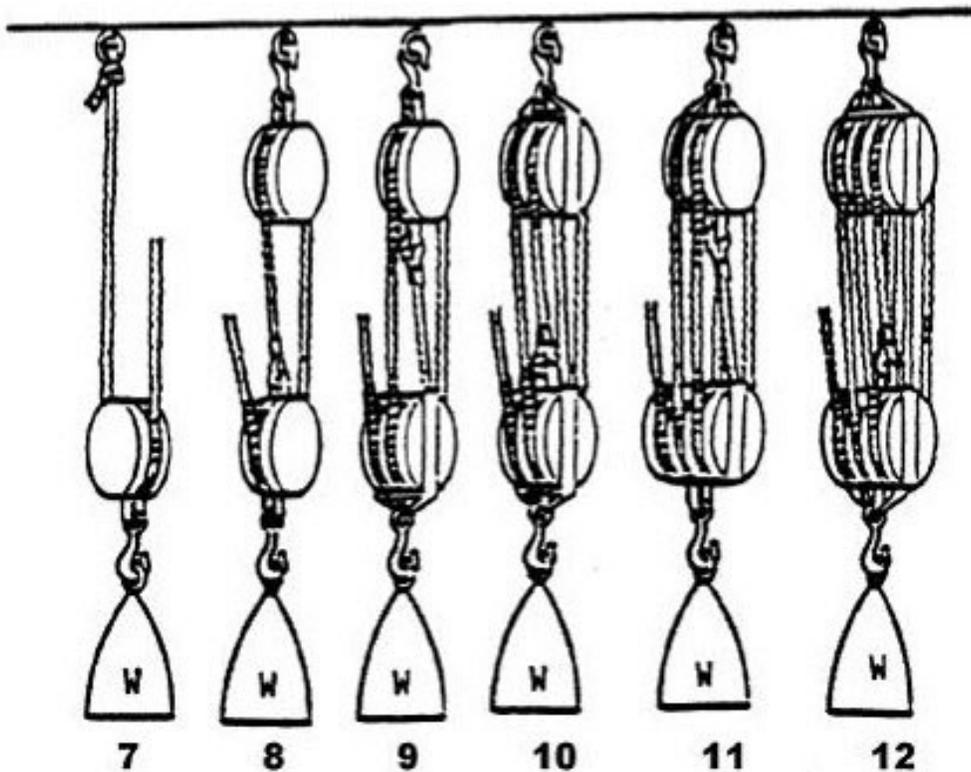
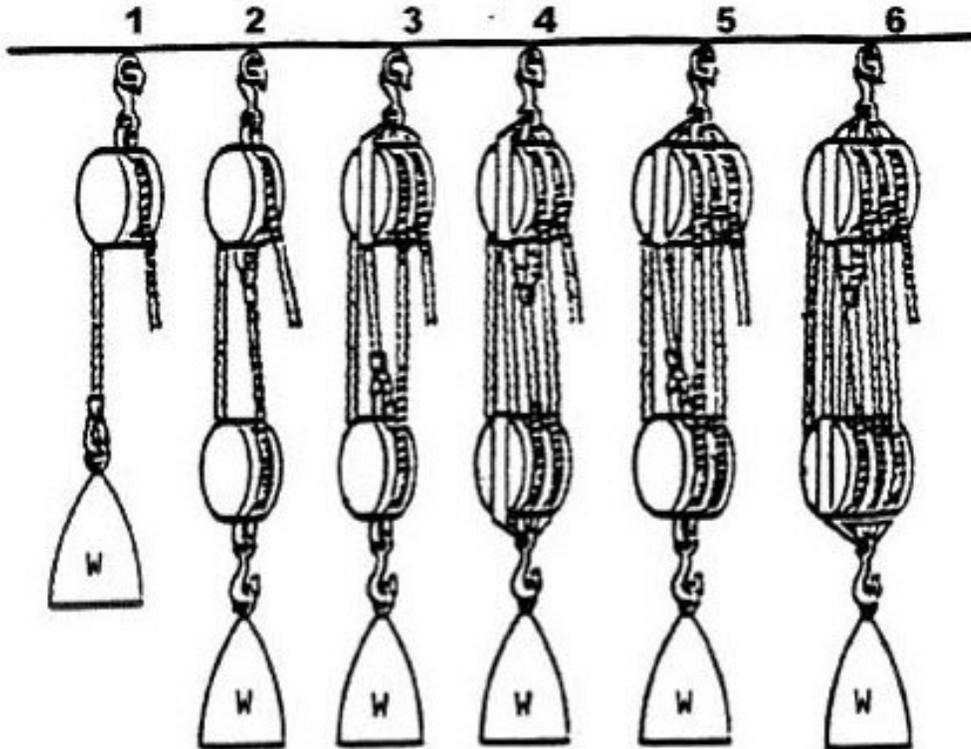
If choice A is selected set score to 1.

70. What is the period of validity of a Safety Management Certificate?

- (A) 42 months
- (B) 60 months
- (C) 48 months
- (D) 36 months

If choice B is selected set score to 1.

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