U.S.C.G. Merchant Marine Exam
Mate Less than 500-1600 Gross Registered Tons

Q136-Deck General

(Sample Examination)
Choose the best answer to the following Multiple Choice Questions.

1. Small floes of rough, hummocky sea ice are capable of damaging a vessel. Which statement is TRUE?
   - (A) The floes are usually seen at night before they are close enough to provide a radar echo
   - (B) They can usually be detected by radar in a smooth sea at a range of 2 to 4 miles
   - (C) They are indistinguishable from sea return on the PPI
   - (D) The floes are invisible to radar when covered with a thick layer of snow
   
   If choice B is selected set score to 1.

2. To safely anchor a vessel there must be sufficient "scope" in the anchor cable. Which BEST defines the term scope?
   - (A) The ratio of the length of anchor to the depth of water
   - (B) The ratio of the weight of cable to the weight of vessel
   - (C) The ratio of the length of cable to the depth of water
   - (D) The ratio of the weight of cable to the weight of the anchor
   
   If choice C is selected set score to 1.

3. You are planning the stowage of two incompatible products on your multiple-product tankship. What will NOT provide the minimum required segregation?
   - (A) Empty tank
   - (B) Solid (non-intercostal) bulkhead
   - (C) Tank containing a third cargo compatible with the other two
   - (D) Diagonally adjacent tanks
   
   If choice B is selected set score to 1.

4. Which part of an anchor actually digs into the bottom?
   - (A) Crown
   - (B) Fluke
   - (C) Shank
   - (D) Stock
   
   If choice B is selected set score to 1.

5. Which is a precaution you should take before bunkering?
   - (A) Plug the scuppers
   - (B) Close the lids on the vents
   - (C) Plug the vents
   - (D) Plug the sounding pipes
   
   If choice A is selected set score to 1.
6. What best describes for how long a gas-free test is good?
   - (A) Until changes in temperature or pressure affect the vapor content in the space
   - (B) Until valves in line with the tank or compartment are reopened
   - (C) For as long as is indicated on the gas-free certificate
   - (D) For the instant that it is made

   *If choice D is selected set score to 1.*

7. Keeping the draft at or below the load line mark will insure that the vessel has which of the following?
   - (A) Reserve buoyancy
   - (B) Minimal displacement
   - (C) Adequate ballast
   - (D) Normal rolling periods

   *If choice A is selected set score to 1.*

8. To what chemical family does ethylene oxide belong?
   - (A) Glycol ethers
   - (B) Alcohols
   - (C) Esters
   - (D) Alkylene oxides

   *If choice D is selected set score to 1.*

9. What is the mechanical advantage of tackle number 2 as shown in illustration D029DG below?
   - (A) 0.5
   - (B) 1.0
   - (C) 2.0
   - (D) 3.0

   *If choice C is selected set score to 1.*

10. What are tank vessels handling grade B liquids required to have their cargo pumps separated from all sources of vapor ignition by?
    - (A) cofferdams
    - (B) empty cargo spaces
    - (C) gas tight bulkheads
    - (D) areas equipped with power ventilation

    *If choice C is selected set score to 1.*
11. When using the Code of Federal Regulations (CFR's) for Tank Vessels, you see T/O and B/C. What do the T and B tell you?

- (A) The waters in which vessels may operate
- (B) Type of vessel to which the regulation applies
- (C) Special construction limitations
- (D) Grades of cargo which may be carried

If choice B is selected set score to 1.

12. Which agency must approve the Safety equipment on board inspected vessels?

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

If choice C is selected set score to 1.

13. Which of the listed functions is the purpose of a gas scrubber in an inert gas generation system?

- (A) Bleeds off static electricity in the inert gas.
- (B) Cools the inert gas.
- (C) Maintains the oxygen content at 5% by volume.
- (D) Maintains flow to the water seal on the gas main.

If choice B is selected set score to 1.

14. Which trait makes Nylon line dangerous?

- (A) Nylon line is not elastic
- (B) Nylon line kinks when wet
- (C) Nylon line breaks down when wet
- (D) Nylon line can stretch 40 percent

If choice D is selected set score to 1.

15. The number of certificated able seamen and lifeboatmen required on a vessel is determined by which organization?

- (A) Coast Guard
- (B) International Maritime Organization
- (C) Corps of Engineers
- (D) American Bureau of Shipping

If choice A is selected set score to 1.
16. Flammable liquid means any liquid which gives off flammable vapors at or below __________.
   - (A) 40°F (4.4°C)
   - (B) 80°F (26.7°C)
   - (C) 110°F (43.3°C)
   - (D) 150°F (65.6°C)

   If choice B is selected set score to 1.

17. Which term defines "An electronic or electric device that indicates the rate of turn of a vessel,"?
   - (A) Swing meter
   - (B) Gyro-compass
   - (C) Magnetic compass
   - (D) Odometer

   If choice A is selected set score to 1.

18. In order to carry a cargo of triethanolamine, what hull type is required?
   - (A) I
   - (B) II
   - (C) III
   - (D) IV

   If choice C is selected set score to 1.

19. If Annex V to MARPOL 73/78 applies to your vessel, which of the following cannot be discharged anywhere at sea?
   - (A) Glass
   - (B) Plastic
   - (C) Metal
   - (D) All of the above

   If choice D is selected set score to 1.

20. As a general rule, how will your vessel lie when it is drifting in a locale where there is no current?
   - (A) The stern to the wind
   - (B) With the wind on the quarter
   - (C) The bow to the wind
   - (D) The beam to the wind

   If choice D is selected set score to 1.
21. Which operation may cause the pressure in an inert tank to fall below the prescribed limits?

- (A) Loading
- (B) Discharging
- (C) Crude oil washing
- (D) Steaming tanks

*If choice B is selected set score to 1.*

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

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

*If choice B is selected set score to 1.*

23. Which agency assigns Load lines for U.S. vessels?

- (A) The Lloyd's Register of Shipping
- (B) The U.S. Coast Guard
- (C) The American Bureau of Shipping
- (D) The National Cargo Bureau

*If choice C is selected set score to 1.*

24. Which of the following is not an acceptable unit of measure to be used consistently throughout an Oil Record Book?

- (A) Gallons
- (B) Cubic meters
- (C) Tons
- (D) Barrels

*If choice C is selected set score to 1.*

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

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

*If choice D is selected set score to 1.*
26. You are loading a cargo tank on your container ship. The tank displays the red label as shown in illustration D023DG below. Which statement is TRUE?

- (A) The tank contains an oxidizing material.
- (B) The tank’s volume is 1077 cubic feet.
- (C) The tank contains propylene.
- (D) There are three tanks in the shipment.

*If choice C is selected set score to 1.*

27. When an official logbook is not required, an unofficial logbook is required to be kept aboard for review by a marine inspector for __________.

- (A) 12 months
- (B) one month
- (C) six months
- (D) None of the above

*If choice A is selected set score to 1.*

28. Grade E combustible liquids have a flash point of __________.

- (A) 150°F or above
- (B) 60°F to 100°F
- (C) 80°F to 150°F
- (D) 90°F to 120°F

*If choice A is selected set score to 1.*

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

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

*If choice C is selected set score to 1.*

30. You may not serve as person-in-charge of oil transfer operations on more than one vessel at a time unless which condition is met?

- (A) Not allowed under any circumstances
- (B) Radio communication is set up between the vessels
- (C) Is authorized by the Captain of the Port
- (D) The vessels are moored clear of all docks

*If choice C is selected set score to 1.*
31. You are conducting trials to determine the maneuvering characteristics of your vessel. While making a turn you take the ranges and bearings of an isolated light. The results are shown in illustration D034DG below. What is the transfer for a turn of 75°?

- (A) 365 yards (306 meters)
- (B) 320 yards (274 meters)
- (C) 230 yards (207 meters)
- (D) 190 yards (171 meters)

*If choice B is selected set score to 1.*

32. An icebreaker assisting a vessel through an ice field would display a visual signal consisting of the code letter "E" (Echo). What does this signal indicate?

- (A) My vessel is stopped and making no way through the water
- (B) I am operating astern propulsion
- (C) I am altering my course to port
- (D) I am altering my course to starboard

*If choice D is selected set score to 1.*

33. Wire rope should be renewed when which of the following occurs?

- (A) The inner core appears dry
- (B) The outer wires are worn to half their original diameter
- (C) The outer wires are rusted
- (D) The certification period expires

*If choice B is selected set score to 1.*

34. On a ship’s crane, the load chart relates the allowable load to the combination of the boom length and __________.

- (A) boom strength
- (B) winch speed
- (C) load radius
- (D) cable strength

*If choice C is selected set score to 1.*

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

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

*If choice B is selected set score to 1.*
36. Which is the proper term used to describe a stream of water immediately surrounding a moving vessel's hull, flowing in the same direction as the vessel?

- (A) Wake current
- (B) Forward current
- (C) Propeller current
- (D) Directional current

*If choice A is selected set score to 1.*

37. Which item will the prudent Deck Officer check prior to relieving the watch while the vessel is in port?

- (A) Has the security call on VHF channel 10 been made
- (B) The capability of shore power
- (C) How many RPM is the shaft being turned
- (D) The appropriate signal or lights are exhibited or sounded

*If choice D is selected set score to 1.*

38. Which agency both assigns load lines, and issues Load Line Certificates?

- (A) The American Bureau of Shipping
- (B) The U.S. Coast Guard
- (C) The Secretary of Commerce
- (D) The U.S. Customs

*If choice A is selected set score to 1.*

39. Fuel oil tank vents are fitted with a screen which will stop __________.

- (A) air from entering the tank vent
- (B) oil from flowing out of the tank vent
- (C) flames on deck from entering the tank vent
- (D) vapors from leaving the tank vent

*If choice C is selected set score to 1.*

40. Your vessel is broken down and rolling in heavy seas. How can you reduce the danger of capsizing?

- (A) Move all passengers to the stern
- (B) Rigging a sea anchor
- (C) Move all passengers to one side of the boat
- (D) Constantly shifting the rudder

*If choice B is selected set score to 1.*
41. What is the best splice for repairing a parted synthetic fiber mooring line?

- (A) Locking long splice
- (B) Liverpool splice
- (C) Long splice
- (D) Short splice

*If choice D is selected set score to 1.*

42. As you hold a piece of manila line vertically in front of you, the strands run from the lower right to the upper left. Which type of line is this?

- (A) Water-laid
- (B) Left-hand laid
- (C) Plain-laid
- (D) Shroud-laid

*If choice B is selected set score to 1.*

43. Grade E combustible liquids are those having flash points of __________.

- (A) 150°F or greater
- (B) 80°F or less
- (C) greater than 115°F and less than 150°F
- (D) greater than 80°F and less than 115°F

*If choice A is selected set score to 1.*

44. Which document shows details of a tank vessel, cargoes it may carry, manning and safety equipment required?

- (A) Cargo Gear Certificate
- (B) Certificate of Inspection
- (C) Declaration of Inspection
- (D) Safety Construction Certificate

*If choice B is selected set score to 1.*

45. 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 broach
- (C) The craft may plunge into the wave
- (D) The craft will list severely

*If choice C is selected set score to 1.*
46. An icebreaker is displaying a flag hoist which consists of the code letters "WO" (Whiskey Oscar). What does this signal indicate?

- (A) The icebreaker is beset
- (B) Icebreaker support is finished
- (C) Icebreaker support is commencing
- (D) The icebreaker is icebound

*If choice B is selected set score to 1.*

47. What is the function of the "rudder adjustment" control on an autopilot steering stand?

- (A) To set the departure from base course before actuating the rudder
- (B) To set the rate at which the rudder responds
- (C) To align the rudder angle indicator with the true rudder angle
- (D) To set the number of degrees of rudder per degree of course error

*If choice D is selected set score to 1.*

48. A tanker is loaded with 8,000 barrels of fuel oil. The temperature of the cargo is 50°F. API gravity is 37°. The volume correction factor (VCF) is .0005. What is the net amount in gallons of cargo loaded?

- (A) 334,320
- (B) 337,680
- (C) 437,800
- (D) 442,200

*If choice B is selected set score to 1.*

49. A flame screen __________.

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

*If choice B is selected set score to 1.*

50. Stress on the topping lift of a swinging boom can be reduced by __________.

- (A) Increasing the mechanical advantage of the cargo purchase
- (B) Rigging a back stay
- (C) Taking all slack out of the preventer
- (D) Raising the boom

*If choice D is selected set score to 1.*
51. If a hydraulic pump on a winch accidentally stops while hoisting, the load will stay suspended because __________.

- (A) the electric pump motor will cut out
- (B) the control lever will move to the stop position
- (C) a centrifugal counterweight counteracts the force of gravity.
- (D) a check valve will close and prevent reverse circulation

*If choice D is selected set score to 1.*

52. During oil transfer operations, who is responsible for ensuring that the posted transfer procedures are followed?

- (A) The tankerman
- (B) The designated person in charge
- (C) The senior able seaman
- (D) The oiler

*If choice B is selected set score to 1.*

53. Under the Pollution Regulations, how long must garbage disposal records be retained onboard for?

- (A) One year
- (B) Two years
- (C) Until the end of the voyage
- (D) Until the next Coast Guard inspection

*If choice B is selected set score to 1.*

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

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

*If choice D is selected set score to 1.*

55. Using a scope of 6, determine how many feet of anchor cable you should put out to anchor in 12 feet (3.7 meters) of water.

- (A) 2 feet (0.6 meters)
- (B) 18 feet (5.5 meters)
- (C) 48 feet (14.6 meters)
- (D) 72 feet (21.9 meters)

*If choice D is selected set score to 1.*
56. What should you be concerned with when loading and securing vehicles on a Ro-Ro?

- (A) Number, position and angle of lashes
  - (B) Number of axles
  - (C) Disconnecting the battery cables to prevent fire hazard
  - (D) Minor air pressure changes in the tires

*If choice A is selected set score to 1.*

57. You discharge food waste overboard at sea. You have recorded your vessel's position as required, what other items must be included in the report?

- (A) The vessel's latitude and longitude is all that is required
  - (B) The vessel's latitude, longitude, course, speed, and a copy of that days noon position slip
  - (C) The vessel's latitude, longitude, date and time of the discharge
  - (D) The vessel's latitude, longitude and approximate depth of water

*If choice C is selected set score to 1.*

58. 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.*

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

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

*If choice D is selected set score to 1.*

60. Which is a disadvantage of using chain lashing on heavy vehicles aboard Ro-Ro vessels?

- (A) It is costly relative to the strength ratio
  - (B) The chain is easily damaged
  - (C) It is affected by temperature
  - (D) The chain is heavy

*If choice D is selected set score to 1.*
61. You are a watchstanding mate and have come to the bridge to relieve the watch while underway at sea. Which evaluation(s) will require the transfer of command to be detained until completed?

- (A) During an engine speed change as per night orders
- (B) During a navigational course change
- (C) Any time the helm is in the "hand" mode
- (D) All of the above

*If choice B is selected set score to 1.*

62. According to regulations, which choice depicts the bursting pressure of a cargo hose used for transferring liquefied gases?

- (A) One and a half times the designed working pressure
- (B) Four times the pressure of the cargo pump used for transferring
- (C) Five times the minimum working pressure on the hose during cargo transfer
- (D) Five times the maximum working pressure on the hose during cargo transfer

*If choice D is selected set score to 1.*

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

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

*If choice A is selected set score to 1.*

64. To determine the number of able seamen required on an inspected vessel, you should check which document?

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

*If choice B is selected set score to 1.*

65. Which of the signals listed is required to be displayed at night while bunkering at a dock?

- (A) Two red lights
- (B) One red light over a white light
- (C) One red light over a yellow light
- (D) One red light

*If choice D is selected set score to 1.*
66. Annex V to MARPOL 73/78 contains requirements pertaining to the discharge into the marine environment of which item?

- (A) Garbage
- (B) Oil
- (C) Noxious liquid substances
- (D) Air pollutants

*If choice A is selected set score to 1.*

67. With an increase in temperature the volume of flammable and combustible liquids __________.

- (A) remains constant
- (B) contracts
- (C) remains constant if pressure remains constant
- (D) expands

*If choice D is selected set score to 1.*

68. In accordance with U.S. regulations, no vessel can come or remain alongside a tank vessel while it is loading A, B, or C grade cargo without permission from whom?

- (A) The terminal manager
- (B) The tank ship owner
- (C) The person in charge of the vessel which is loading
- (D) The USCG captain of the port

*If choice C is selected set score to 1.*

69. When oily ballast has been pumped overboard, an entry must be made in which log?

- (A) Engine rough log
- (B) Deck rough log
- (C) Official Logbook
- (D) Oil Record Book

*If choice D is selected set score to 1.*

70. Which portable fire extinguisher is classified as a type B-III extinguisher?

- (A) 12 gallon soda acid
- (B) 20 gallon foam
- (C) 30 pound carbon dioxide
- (D) 20 pound dry chemical

*If choice D is selected set score to 1.*
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