U.S.C.G. Merchant Marine Exam

Apprentice Mate Steersman

Q418-Deck General

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

1. Which is a predictable result of a vessel nearing a bank or edge of a steep banked channel?
   - (A) The vessel will be drawn bodily into the bank unless the engines are stopped
   - (B) The vessel continues in a straight line, but with greatly reduced maneuverability
   - (C) The bow sheers toward the bank
   - (D) The stern is drawn to the bank as the bow sheers off

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

2. According to regulations, how many B-II hand portable fire extinguishers are required in the cargo tank area of an unmanned, cargo pump-equipped tank barge while engaged in transferring grade B flammable liquids?
   - (A) Three
   - (B) Two
   - (C) One
   - (D) None

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

3. What statement is true regarding a Contract Salvage Agreement?
   - (A) There is a "no cure-no pay" agreement
   - (B) Lloyd's Open Form (LOF) Salvage Agreement is a Contract Salvage Agreement
   - (C) The crew is allotted the largest percentage of the salvage award
   - (D) The cost of the salvage is set at a fixed price

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

4. An icebreaker assisting a vessel through an ice field would display a visual signal consisting of the code letter "M" (Mike). What does this signal signify?
   - (A) My vessel is stopped and making no way through the water
   - (B) I am altering my course to port
   - (C) I am operating astern propulsion
   - (D) I am altering my course to starboard

   *If choice A is selected set score to 1.*
5. You are in charge of a 225-gross ton tug preparing to depart from Houston, Texas, with a loaded 2500-gross ton tank barge bound for New York. Prior to departure, regulations require you to take which action?

- (A) Record the condition of the towing gear
- (B) Have on board an Official Logbook in lieu of other forms of records
- (C) Record the barge's load line and draft readings
- (D) Record the status of all firefighting equipment

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

6. You are using tackle number 12 as shown in illustration D029DG below to lift a weight. The hauling part of this tackle is bent to the weight hook (w) of tackle number 2. What is the mechanical advantage of this rig?

- (A) 9
- (B) 10
- (C) 14
- (D) 21

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

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

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

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

8. When is direct voice communication allowed in place of an internal communication system between the engine room and the operating station on a towing vessel?

- (A) When the vessel is ruled to be an "existing vessel"
- (B) When the vessel is less than 26 meters in length
- (C) When the controls at the operation station are within 10 feet of the engine room access
- (D) When a person's voice can be heard better than a portable radio with existing background noise

*If choice C is selected set score to 1.*
9. The number of able seamen required on board a vessel can be found in which document?

   o (A) American Bureau of Shipping code
   o (B) SOLAS Certificate
   o (C) Classification Certificate
   • (D) Certificate of Inspection

   If choice D is selected set score to 1.

10. As a ship moves through the water, it causes a wake, which is also moving forward relative to the sea. In addition to a fore and aft motion, which direction will the wake flow?

   o (A) Upward and outward flow
   • (B) Upward and inward flow
   o (C) Downward and outward flow
   o (D) Downward and inward flow

   If choice B is selected set score to 1.

11. Which will most likely occur when your vessel enters shallow water?

   o (A) Rudder action will become more effective
   o (B) An increase in speed will occur
   • (C) The vessel’s trim will change
   o (D) The vessel’s list will decrease

   If choice C is selected set score to 1.

12. You are rigging a stage over the ship’s side to serve as a working platform. For stability of the stage, the downhaul to one end of the stage and the downhaul to the other end, which are used for lowering the stage, should be led in which direction?

   o (A) Either both to the inboard or both to the outboard side of the stage
   o (B) Both to the inboard side of the stage
   o (C) Both to the outboard side of the stage
   • (D) One to the inboard and the other to the outboard

   If choice D is selected set score to 1.

13. What does a Visaed Alien Crew List which is made and submitted to the U.S. Consul for visa show?

   o (A) All aliens aboard
   o (B) Registered aliens aboard
   • (C) Nonresident aliens aboard
   o (D) All crew members

   If choice C is selected set score to 1.
14. What is the number of fire extinguishers required on an uninspected "Motor vessel" based on?

- (A) The vessel's draft
- (B) The vessel's length
- (C) The number of crew members
- (D) The vessel's gross tonnage

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

15. An icebreaker may use the code letter "K" to remind ships of their obligation to listen continuously on their radio. How can this signal be communicated to other vessels?

- (A) By sound signal
- (B) By visual signal
- (C) By light signal
- (D) All of the above

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

16. Which term describes the distance a vessel moves parallel to the original course from the point where the rudder is put over to any point on the turning circle?

- (A) Drift angle
- (B) Pivoting point
- (C) Advance
- (D) Transfer

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

17. Which term is used to describe the distance a vessel moves at right angles to the original course, when a turn of 180° has been completed?

- (A) Kick
- (B) Advance
- (C) Pivoting point
- (D) Tactical diameter

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

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

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

*If choice A is selected set score to 1.*
19. What is meant by the term "broaching to"?
   - (A) Having the vessel filled with water
   - (B) Running before a sea
   - (C) Being turned broadside to the sea
   - (D) Having the vessel head toward the sea

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

20. Safety goggles or glasses are NOT normally worn during which task?
   - (A) Letting go the anchor
   - (B) Handling wire rope or natural fiber line
   - (C) Painting with a spray gun
   - (D) Using a rotary grinder with an installed shield

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

21. While being assisted by an icebreaker on Lake Superior, you receive a single letter code instructing you to slow your vessel. Which signal could you use to signify that you are complying with the request?
   - (A) Three blasts of the whistle
   - (B) The code flag "L" (Lima) displayed from a halyard
   - (C) The code flag "A" (Alpha) displayed from a halyard
   - (D) Four blasts of the whistle, namely 1 short 2 long and 1 short

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

22. You are in the process of adding a barge to your tow. A line run from your power capstan and around timber heads on your tow is made fast on the new barge so that it can be pulled into position. What is this line called?
   - (A) Capstan line
   - (B) Fore and aft line
   - (C) Scissors wire
   - (D) Spring line

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

23. What is the cause of most minor spills of oil products?
   - (A) Major casualties
   - (B) Human error
   - (C) Unforeseeable circumstances
   - (D) Equipment failure

   *If choice B is selected set score to 1.*
24. 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.*

25. Which action reduces the yawing of a vessel in a following sea?

- (A) Pumping out tanks aft
- (B) Increasing GM
- (C) Shifting weights to the stern
- (D) Shifting weights to the bow

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

26. You would NOT secure a line to which item?

- (A) Timber head
- (B) Button
- (C) Caval
- (D) Stand pipe

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

27. Asphyxia is generally limited to enclosed spaces, and the deficiency of breathable air in an enclosed space can occur with any of the following conditions. Indicate the condition that will NOT cause asphyxia.

- (A) When large quantities of cargo vapor is present
- (B) Where rusting of internal tank surfaces has taken place.
- (C) Where large quantities of inert gas is present.
- (D) When 21% of oxygen is present.

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

28. Mooring wire fiber tails should be inspected on a regular basis. Which of the following would be included in the inspection?

- (A) Inspection of the overall length to determine amount of stretch
- (B) Inspection of the connection between the wire and tail
- (C) Inspection for any signs of fading
- (D) Inspection of the diameter and replace if there is a 10% increase

*If choice B is selected set score to 1.*
29. Which statement about the deck line is TRUE?

- (A) The deck edge is marked at the intersection of the freeboard deck with the side shell, at the lowest point of sheer, with the vessel at even trim.
- (B) The top of the deck line is marked at the highest point of the freeboard deck, including camber, at the midships point.
- (C) A vessel with wooden planks on a steel deck will have the deck line marked at the intersection of the upper line of the wood sheathing with the side shell.
- (D) On a vessel with a rounded stringer-sheer plate, the deck line is marked where the stringer plate turns down from the plane of the deck line.

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

30. The charterer has completed loading the vessel in 3 days instead of the 5 days agreed to in the charter party. Which action may be a result of this?

- (A) The shipowner may charge for two lay days
- (B) The stevedore may collect demurrage
- (C) The consignee may be required to pay a ceaser fee
- (D) The charterer may receive dispatch money

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

31. Fire protection regulations for towing vessels require any fuel line to have which item?

- (A) A remotely operated positive fuel shut-off valve located at the tank
- (B) A drain cock at the lowest point in the fuel line
- (C) A shut-off check valve at the top of the tank
- (D) A gate valve easily operated in the space where the tank is located

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

32. Which term describes the amount of force a tug can exert on a stationary pull?

- (A) Brake horsepower
- (B) Indicated horsepower
- (C) Bollard pull
- (D) Shaft horsepower

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

33. What is the equipment used to control, protect and connect a towline called?

- (A) Cat head
- (B) Poured socket
- (C) Level wind
- (D) Terminal gear

*If choice D is selected set score to 1.*
34. For insurance purposes, which is a requirement for a general average act?
   o (A) There are no losses
   o (B) There must be no imminent peril
   • (C) It must be a successful venture
   o (D) All of the above
   
   If choice C is selected set score to 1.

35. The shipping papers for the products being carried in your tankship are NOT required to contain which information?
   o (A) The grades of the cargoes
   o (B) The location of the delivery point(s)
   o (C) The name of the consignee(s)
   • (D) The exact quantity of the cargoes
   
   If choice D is selected set score to 1.

36. What type of knot in illustration D030DG below is indicated by the Letter "E"?
   o (A) Blackwall hitch
   • (B) Timber and half hitch
   o (C) Stopper hitch
   o (D) Bowline on a bight
   
   If choice B is selected set score to 1.

37. The flash point of a product is 100°F. What can happen if it is heated above 110°F?
   o (A) It will boil off to the atmosphere.
   o (B) It will become less volatile and easier to handle.
   • (C) It may burn and explode if an ignition source is present.
   o (D) None of the above
   
   If choice C is selected set score to 1.

38. What is used to prevent wear on towlines that bear on hard surfaces?
   • (A) Chafing gear
   o (B) Boots
   o (C) Grease
   o (D) Chocks
   
   If choice A is selected set score to 1.
39. Fire protection and manning regulations for towing vessels state that the Master or person in charge must ensure that all crew members who have not participated in the drills or received the safety orientation must do which of the following?

- (A) The person must receive a safety orientation or view a videotape before the vessel gets underway
- (B) The person must view a videotape on safety procedures within 48 hours of reporting for duty
- (C) The person must receive a safety orientation within 24 hours of reporting for duty
- (D) None of the above

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

40. When towing astern, chafing gear should NOT be used on a hawser in which situation?

- (A) The tow hawser is connected to a swivel
- (B) The hawser is on an automatic towing engine
- (C) The hawser is held amidships by a gob rope
- (D) The hawser is attached to an "H" bitt

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

41. On uninspected vessels, when may U. S. Coast Guard approved work vests be substituted for life jackets?

- (A) Only when aboard work vessels
- (B) Only when aboard sailing vessels
- (C) Under no circumstances may they be substituted
- (D) Only when aboard towing vessels

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

42. Which term defines the strainer at the bottom of a bilge suction pipe to prevent clogging?

- (A) Pipe cap
- (B) Rose box
- (C) Bellmouth
- (D) Flange

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

43. Which is the principal reason that barges and vessels are ballasted before departure?

- (A) To avoid polluting waters where liquid ballast may not be discharged
- (B) To allow movement of liquids within the barge for tank cleaning
- (C) To improve their stability
- (D) To cause free surface effects

*If choice C is selected set score to 1.*
44. A vessel reduces speed without backing. Which item is the primary factor that determines the rate that her speed through the water decreases?

- (A) The vessel’s horsepower
- (B) The vessel’s displacement
- (C) The number of propellers
- (D) The sea state

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

45. Which action can you take to reduce the amount of catenary in the towing hawser?

- (A) Make a sharp turn
- (B) Lengthen the hawser or reduce the tug’s speed
- (C) Shorten the hawser or increase the tug’s speed
- (D) Place your tug in irons

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

46. When running before a heavy sea, what will moving weights aft on the vessel accomplish?

- (A) Reduce the yawing of the vessel
- (B) Reduce the rolling of the vessel
- (C) Increase the rolling of the vessel
- (D) Increase the yawing of the vessel

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

47. During transfer operations, a quantity of propylamine spills on deck. According to the Chemical Data Guide, what is the correct reaction?

- (A) immediately flush the spill with large quantities of fresh water
- (B) cover the contaminated surface with soda-ash-soaked lime solution
- (C) add sodium bisulfate on the contaminated surface and spray it down with water
- (D) move to a position upwind of the spill and allow the product to boil off

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

48. Multiple factors will have an effect on your vessel when it is maneuvering in restricted waters. Which of the following factors is the combination of sinkage and trim of the vessel?

- (A) Bank cushion
- (B) Bank suction
- (C) Heel
- (D) Squat

*If choice D is selected set score to 1.*
49. International Oil Pollution Prevention (IOPP) Certificates are required for each U.S. oil tanker at or above how many gross registered tons?

- (A) 100 gross registered tons
- (B) 150 gross registered tons
- (C) 300 gross registered tons
- (D) 400 gross registered tons

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

50. Which is a negotiable document?

- (A) Receiving Report
- (B) Bill of Lading
- (C) Cargo Manifest
- (D) Export Declaration

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

51. If you are operating on the Inland Waters of the United States, which of the following may you discharge overboard?

- (A) Bottles
- (B) Metal
- (C) Dunnage
- (D) None of the above

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

52. Which term defines the process of dividing the total volume of the ship in cubic feet (after omission of exempted spaces) by 100?

- (A) Light displacement
- (B) Bale cubic
- (C) Net tonnage
- (D) Gross tonnage

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

53. A U.S. Coast Guard icebreaker, while escorting ships in ice, has sounded four short and one long blasts on the whistle. What does this indicate?

- (A) The vessel is increasing speed; watch for broken ice
- (B) The vessel has become icebound, Stop
- (C) The vessel has its engines full astern, stay clear
- (D) The vessel is increasing the distance between vessels

*If choice B is selected set score to 1.*
54. Two vessels are abreast of each other and passing port to port in a confined waterway. What should you expect as your bow approaches the screws of the other vessel?

- (A) Your bow will sheer towards the other vessel.
- (B) Your draft will significantly decrease.
- (C) Your speed will significantly increase.
- (D) Your bow will sheer away from the other vessel.

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

55. Why is the effect of ocean current usually more evident on a tug and tow than on a tug navigating independently?

- (A) The towline catches the current
- (B) The speed of the tug and tow is less
- (C) The current causes yawing
- (D) The current will offset the tow

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

56. Which is an explosion hazard when exposed to flame?

- (A) Tallow
- (B) Formic acid
- (C) Toluene
- (D) Nitrous oxide

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

57. 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.*

58. Which term(s) are in the category of "oil" as used in the Oil Pollution Regulations?

- (A) Fuel oil
- (B) Sludge
- (C) Oil refuse
- (D) All of the above

*If choice D is selected set score to 1.*
59. An icebreaker assisting a vessel through an ice field would display a visual signal consisting of the code letter "I" (India) to signify that "__________".

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

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

60. If your single hull JP-5 barge has operated in salt water for less than 1 month in the 12 month period since it was last dry-docked, when is it required to be hauled out again?

- (A) 60 months since last dry-docking
- (B) 36 months since last dry-docking
- (C) 24 months since last dry-docking
- (D) 12 months since last dry-docking

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

61. Which type of ice is a hazard to navigation?

- (A) Growlers
- (B) Ice rind
- (C) Pancake ice
- (D) Frazil ice

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

62. Which of the following is required to have a Shipboard Oil Pollution Emergency Plan?

- (A) All vessels, regardless of size and commercial application
- (B) An oil tanker of 150 gross tons and above, or other ship of 400 gross tons and above
- (C) Any barge or ship constructed or operated in such a manner that no oil in any form can be carried aboard
- (D) An oil tanker of 400 gross tons and above, or other ships of 150 gross tons and above

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

63. What is NOT a basic shiphandling rule for navigating in ice concentrations on the Great Lakes?

- (A) Transit ice along pressure ridges when possible.
- (B) Keep moving - even very slowly, but keep moving.
- (C) Excessive speed means ice damage.
- (D) Work with the ice movement, not against.

*If choice A is selected set score to 1.*
64. Towing vessel fire protection regulations define a "fixed fire-extinguishing system" to include all of the following EXCEPT which item?

- (A) A manually-operated water-mist system
- (B) A manually-operated clean-agent system
- (C) A carbon-dioxide system
- (D) A halon system

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

65. What is the purpose of a "check" line?

- (A) A line used to measure the overhead height of a bridge
- (B) A line used to measure water depth
- (C) A line used to slow the headway of a barge
- (D) A safety line attached to a man working over the side

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

66. Fire protection regulations for towing vessels require that drills be conducted on board the vessel as if there were an actual emergency. Drills include all of the following, EXCEPT which item?

- (A) One person putting on protective clothing, if the vessel is so equipped
- (B) Breaking out and using the vessel's emergency equipment
- (C) Testing all alarm and detection systems
- (D) Participation by selected crew members

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

67. Which credential enables a person to serve as person in charge of a tank barge which is transferring cargo?

- (A) Ordinary Seaman/Wiper
- (B) Able Seaman
- (C) Operator of Uninspected Towing Vessels
- (D) Certified Tankerman(PIC)

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

68. Where can the U.S. regulations for the preparation of cargo holds prior to loading hazardous material be found?

- (A) 46 CFR 176.58
- (B) 49 CFR 176.63
- (C) 49 CFR 176.58
- (D) 46 CFR 176.57

*If choice C is selected set score to 1.*
69. The owner or Master of a vessel pushing ahead or towing alongside must ensure that each of the following is appropriate for the vessel's horsepower and tow arrangement EXCEPT which item?

- (A) Hydraulic couplings
  - (B) Push gear
  - (C) Face wires
  - (D) Spring lines

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

70. A tow of 9 barges is made up three abreast by three long. The towboat is faced up to the last barge of the center string. What is the name of the outer two strings of barges?

- (A) The drag strings
  - (B) The outer strings
  - (C) The side strings
  - (D) The port and starboard strings

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