

U.S.C.G. Merchant Marine Exam
Second Mate to Master Less than 1600 GRT
Q130 Navigation and Deck General - Deck Safety
(Sample Examination)

Choose the best answer to the following Multiple Choice Questions.

1. A vessel has arrived in a U.S. port from a foreign voyage. Preliminary entry has been made. Formal entry at the U.S. Custom House must be made within how many hours after arrival (Sundays and holidays excepted)?
- (A) 12
 - (B) 24
 - (C) 48
 - (D) 72 without exception

If choice C is selected set score to 1.

2. Which lien against a vessel would be settled FIRST?
- (A) Salvage lien
 - (B) Vessel mortgage
 - (C) Ship repairer's lien
 - (D) Maintenance and cure

If choice A is selected set score to 1.

3. What are the symptoms of a fractured back?
- (A) vomiting and involuntary urination or bowel movement
 - (B) leg cramps in the muscles in one or both legs
 - (C) pain at the site of the fracture and possible numbness or paralysis below the injury
 - (D) pain and uncontrolled jerking of the legs and arms

If choice C is selected set score to 1.

4. When retrieving the survival craft, the helmsman should instruct the crewman to _____.
- (A) take the life preservers off
 - (B) open the doors
 - (C) check the fuel level
 - (D) check that hooks are fully locked in place

If choice D is selected set score to 1.

5. The steering oar in a lifeboat is usually referred to as the _____.
- (A) bumpkin oar
 - (B) stroke oar
 - (C) sweep oar
 - (D) becket oar

If choice C is selected set score to 1.

6. While carrying out artificial respiration how should rescuers be changed out?

- (A) at ten-minute intervals
- (B) by not stopping the respiration for more than 5 minutes
- (C) only with the help of two other people
- (D) without losing the rhythm of respiration

If choice D is selected set score to 1.

7. Your vessel is damaged and on an even keel. There is no trim. The freeboard is reduced to less than 1 foot. The rolling period is very long, and the vessel is sluggish in returning from a roll. Which action would you take FIRST to improve stability?

- (A) Press up a centerline double bottom that is now filled to 15% capacity.
- (B) Rig the jumbo boom and use it to jettison heavy deck cargo.
- (C) In calm seas lower the lifeboats to the water and keep them alongside.
- (D) Pump out the peak tanks simultaneously.

If choice C is selected set score to 1.

8. The number of able seamen required on board is stated in the _____.

- (A) Certificate of Inspection
- (B) Classification Certificate
- (C) Solas Certificate
- (D) American Bureau of Shipping code

If choice A is selected set score to 1.

9. You have steamed 632 miles at 18.5 knots, and consumed 197 tons of fuel. If you have 278 tons of usable fuel remaining, how far can you steam at 15.0 knots?

- (A) 1357 miles
- (B) 681 miles
- (C) 892 miles
- (D) 1100 miles

If choice A is selected set score to 1.

10. Number 3 lifeboat would be _____.

- (A) the forward boat on the starboard side
- (B) behind boat number 2 on the port side
- (C) behind boat number 1 on the starboard side
- (D) behind boat number 1 on the port side

If choice C is selected set score to 1.

11. Which statement concerning dual-tonnage vessels is TRUE?

- (A) The tonnages referred to are the displacement tonnage and gross tonnage.
- (B) A single-deck vessel may not be assigned dual tonnages.
- (C) The dual-tonnage mark is always marked above the load line marks.
- (D) The dual-tonnage mark must never be submerged beyond the freshwater allowance.

If choice B is selected set score to 1.

12. You are proceeding at a slow speed with your starboard side near the right bank of a channel. If your vessel suddenly sheers toward the opposite bank, the best maneuver would be _____.

- (A) full ahead, hard left rudder
- (B) full ahead, hard right rudder
- (C) full astern, hard left rudder
- (D) full astern, hard right rudder

If choice B is selected set score to 1.

13. When underway and proceeding ahead, as the speed increases, the pivot point tends to _____.

- (A) move forward
- (B) remain stationary
- (C) move aft
- (D) move lower

If choice A is selected set score to 1.

14. Which will most likely occur when entering shallow water?

- (A) The vessel's trim will change.
- (B) An increase in speed will occur.
- (C) The vessel's list will change.
- (D) Rudder action will become more effective.

If choice A is selected set score to 1.

15. You are the credentialed Master of a 199 GT uninspected towing vessel making a 500 mile coastwise trip. You carry a deck crew of six (6). Which statement is TRUE?

- (A) There must be at least 5 able seamen among the deck crew.
- (B) There must be 3 separate watches stood.
- (C) Only the able seamen require Merchant Mariner Credentials.
- (D) None of the above

If choice D is selected set score to 1.

16. Which effect does speed through the water have on a vessel which is underway in shallow water?

- (A) A decrease in the speed results in a decrease in steering response and maneuverability.
- (B) A decrease in speed results in the vessel sucking down on an even plane.
- (C) An increase in speed results in the stern sucking down lower than the bow.
- (D) An increase in speed results in the vessel rising on an even plane.

If choice C is selected set score to 1.

17. The Certificate of Freeboard is the _____.

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

If choice A is selected set score to 1.

18. You have steamed 746 miles at 14.0 knots, and consumed 152 tons of fuel. If you have 201 tons of usable fuel remaining, how far can you steam at 10 knots?

- (A) 2263 miles
- (B) 1381 miles
- (C) 1934 miles
- (D) 2707 miles

If choice C is selected set score to 1.

19. When taking a Pilot from a pilot vessel in a seaway, which way should you head your vessel if the ladder is on the leeward side?

- (A) Sea on the quarter with sternway on the ship
- (B) Bow to the sea and no way on your vessel
- (C) Sea on the weather bow and ship moving ahead slowly
- (D) Sea on the lee quarter with ship moving ahead slowly

If choice C is selected set score to 1.

20. You are docking a vessel. If possible, you should _____.

- (A) go in against the current
- (B) approach the dock at a 90° angle and swing to
- (C) pass a mooring line to the dock with a heaving line and let the crew pull the vessel in
- (D) go in with the current

If choice A is selected set score to 1.

21. The distance that a vessel travels from the time that the order to put engines full astern until the vessel is dead in the water is known as _____.

- (A) head reach
- (B) advance
- (C) surge
- (D) transfer

If choice A is selected set score to 1.

22. When a person is in shock, how will their skin appear?

- (A) warm and dry
- (B) warm and damp
- (C) cold and dry
- (D) cold and damp

If choice D is selected set score to 1.

23. You are approaching the pilot station with the wind fine on the starboard bow and making about 3 knots. You can help to calm the seas by taking what action just before the pilot boat comes along on the port side?

- (A) Giving right full rudder
- (B) Stopping the engines
- (C) Backing full
- (D) A short burst of ahead full with left full rudder

If choice D is selected set score to 1.

24. You are bound from port A governed by the summer load line mark to port B also governed by the summer mark. The great circle track will take you into a zone governed by the winter mark. Which statement is TRUE?

- (A) You must be at the winter mark when you enter the winter zone and cannot exceed the summer mark upon departing port A.
- (B) You can only load to the winter mark plus any fresh water allowance and burnout to sea at port A.
- (C) You cannot load beyond the summer mark at port A and must be at the winter mark upon arrival at port B.
- (D) You can load so that upon arrival at the pier at port B your freeboard is equal to the summer mark less any fresh water allowance.

If choice A is selected set score to 1.

25. When piloting a vessel, how are visual references used to establish a constant rate of turn?

- (A) Visual references cannot be used to maintain a constant rate of turn.
- (B) Begin the turn when the fixed object is on the beam.
- (C) Fixed objects that stay on the same relative bearing when the ship is turning indicate a constant rate of turn.
- (D) Keep the fixed object's relative bearing opening, for a constant rate of turn.

If choice C is selected set score to 1.

26. You are docking a vessel. Wind and current are most favorable when they are _____.

- (A) crossing your course in opposite directions
- (B) crossing your course in the same direction
- (C) parallel to the pier from ahead
- (D) setting you on the pier

If choice C is selected set score to 1.

27. You are on a 120,000 DWT loaded bulk carrier. What is the maximum safe docking speed when coming alongside?

- (A) 0.2 foot per second (0.12 knot)
- (B) 0.1 foot per second (0.06 knot)
- (C) 0.75 foot per second (0.44 knot)
- (D) 0.5 foot per second (0.30 knot)

If choice A is selected set score to 1.

28. The best time to work a boat into a slip is _____.

- (A) at slack water
- (B) with a cross current
- (C) with the current setting against you
- (D) when the wind is against you

If choice A is selected set score to 1.

29. You have abandoned ship and find yourself aboard a lifeboat in a heavy sea. Your boat is able to make way through the water. To prevent broaching, you should _____.

- (A) place everyone as far forward in the boat as possible to keep the bow heavy
- (B) put the sea on your stern and run as fast as the boat will go
- (C) head the boat into the swells to take them at a 30 to 40 degree angle on either bow and run as slow as possible without losing steerage
- (D) take no action to prevent broaching as this is a recommended maneuver in a heavy sea

If choice C is selected set score to 1.

30. Preventer bars are fitted on lifeboat releasing gear to prevent _____.

- (A) operation of the release lever until the boat is waterborne
- (B) the falls from rehooking after they have been released
- (C) the falls from unhooking if the releasing gear is operated accidentally
- (D) accidental unhooking when the falls become slack

If choice D is selected set score to 1.

31. Leeway is the _____.

- (A) difference between the true course and the compass course
- (B) lateral movement of a vessel downwind of her intended course
- (C) displacement of a vessel multiplied by her speed
- (D) momentum of a vessel after her engines have been stopped

If choice B is selected set score to 1.

32. Your vessel is damaged with no list, but down by the stern. There is progressive flooding and trim by the stern is increasing. What is the effect on transverse stability after the deck edge at the stern is submerged?

- (A) KG increases due to the weight of the added water on deck
- (B) BM decreases from loss of water plane and greater volume.
- (C) KB increases, increasing BM and therefore GM
- (D) There is no effect on transverse stability.

If choice B is selected set score to 1.

33. To disengage a survival craft suspended from the cable above the water, you must pull the safety pin and _____.

- (A) pull the hook release handle and use the ratchet bar
- (B) pull the hook release handle
- (C) use the ratchet bar and depress the retainer
- (D) pull the hook release handle and depress the retainer

If choice A is selected set score to 1.

34. As a rule, ships of most configurations, when drifting in calm water with negligible current, will lie _____.

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

If choice B is selected set score to 1.

35. Your ship of 12,000 tons displacement has a center of gravity of 21.5 feet above the keel. You run aground and estimate the weight aground is 2500 tons. The virtual rise in the center of gravity is _____.

- (A) 1.26 feet
- (B) 3.80 feet
- (C) 4.80 feet
- (D) 5.66 feet

If choice D is selected set score to 1.

36. What type of stern tube bearing has the least friction?

- (A) Bronze bushings
- (B) Lignum vitae
- (C) Oil-lubricated bearings
- (D) Hard rubber

If choice C is selected set score to 1.

37. To increase the extent of flooding your vessel can suffer without sinking, you could _____.

- (A) raise the center of gravity
- (B) ballast the vessel
- (C) increase reserve buoyancy
- (D) lower the center of gravity

If choice C is selected set score to 1.

38. Jettisoning weight from topside _____.

- (A) returns the vessel to an even keel
- (B) raises the center of buoyancy
- (C) lowers the center of gravity
- (D) reduces free surface effect

If choice C is selected set score to 1.

39. What is the purpose of a vent header?

- (A) Combines individual vent lines into a main
- (B) Prevents passage of flame into fuel tanks
- (C) Catches overflow
- (D) Prevents entry of water into vent systems

If choice A is selected set score to 1.

40. If one hydraulic pump of an electro-hydraulic steering unit fails, the vessel's steering can initially be maintained by activating which of the following units?

- (A) standby pump
- (B) telemotor
- (C) accumulator
- (D) trick wheel

If choice A is selected set score to 1.

41. In a water-tube marine type boiler, after the steam leaves the generating tubes, in what part of the boiler is temperature of the steam increased?

- (A) Superheater
- (B) Economizer
- (C) Mud drum
- (D) Firebox

If choice A is selected set score to 1.

42. Diesel engines obtain combustion air through turbo chargers, blowers, or _____.

- (A) carburetors
- (B) air receivers
- (C) natural aspiration
- (D) air starters

If choice C is selected set score to 1.

43. The quickest method to stop a small diesel engine whose throttle or governor has become stuck open is to _____.

- (A) drain the fuel tank
- (B) turn off the ignition switch
- (C) apply the shaft brake
- (D) close the fuel supply valve

If choice D is selected set score to 1.

44. Your vessel has gone aground in waters where the tide is falling. The BEST action you can take is to _____.

- (A) shift the vessel's load aft and repeatedly surge the engine(s) astern
- (B) shift the vessel's load forward and wait until the next high tide
- (C) slowly bring the engine(s) to full speed astern
- (D) set out a kedge anchor

If choice D is selected set score to 1.

45. A patient in shock should NOT be placed in which position?

- (A) Head down and feet up, no injuries to face or head
- (B) On their side if unconscious
- (C) Flat on their back with head and feet at the same level
- (D) Arms above their head

If choice D is selected set score to 1.

46. What is the FIRST thing the rescuer must do if the patient vomits during mouth-to-mouth resuscitation?

- (A) turn the patient's body to the side, sweep out the mouth and resume mouth-to-mouth ventilation
- (B) pause for a moment until the patient appears quiet again, then resume ventilation mouth-to-mouth
- (C) switch to mouth-to-nose ventilation
- (D) ignore it and continue mouth-to-mouth ventilation

If choice A is selected set score to 1.

47. SOLAS requires a lifesaving training manual be provided in each crew cabin or in the _____.

- (A) recreation and messrooms
- (B) engineering control station
- (C) fire control room
- (D) bridge

If choice A is selected set score to 1.

48. Due to the nature of a vessel's construction for a particular trade, it does not fully comply with the provisions of SOLAS. Where will this be indicated?

- (A) Nowhere; the vessel must comply to engage in international trade.
- (B) On the reverse of the particular SOLAS certificate affected
- (C) On the Exemption Certificate
- (D) On the face of the Certificate of Inspection

If choice C is selected set score to 1.

49. What is the period of validity of a Cargo Ship Safety Equipment Certificate?

- (A) 72 months
- (B) 60 months
- (C) 48 months
- (D) 42 months

If choice B is selected set score to 1.

50. A shipper of cargo aboard your vessel offers a letter of indemnity for the cargo. This is done in order to obtain a(n) _____.

- (A) Straight Bill of Lading
- (B) Clean Bill of Lading
- (C) Order Bill of Lading
- (D) Through Bill of Lading

If choice B is selected set score to 1.

51. A vessel loads 5000 tons of manganese ore. The railroad cars that brought the ore to the vessel were previously loaded with iron ore so the ore is contaminated. The agent requests the Master to sign a Clean Bill of Lading and in return the shipper will give him a Letter of Indemnity. What is the best procedure to follow?

- (A) Refuse to sign a Clean Bill of Lading.
- (B) Sign a Clean Bill of Lading and accept the Letter of Indemnity.
- (C) Sign the Clean Bill of Lading and have the agent countersign it.
- (D) Sign a Clean Bill of lading under protest.

If choice A is selected set score to 1.

52. Which space(s) is(are) exempt when measuring gross tonnage?

- (A) Part of the wheelhouse used to control vessel
- (B) Steering gear room
- (C) Auxiliary machinery spaces above the uppermost continuous deck
- (D) All of the above

If choice D is selected set score to 1.

53. You are on a 30,000 DWT tankship engaged in trade to another country signatory to MARPOL 73/78. Which statement is TRUE?

- (A) The Certificate of Inspection is prima facie evidence of compliance with MARPOL 73/78.
- (B) AN IOPP Certificate is renewed at each inspection for certification.
- (C) The IOPP Certificate is valid for 5 years.
- (D) An IOPP Certificate is invalid if the ship carries cargoes outside the classes authorized thereon.

If choice C is selected set score to 1.

54. A seaman may have all or part of his wages deposited by allotment to a bank or savings institution. Which of the following is NOT a requirement for this type of allotment?

- (A) The account must be either a checking or savings account.
- (B) The account must be opened by the seaman and maintained in the seaman's name.
- (C) The institution must be insured by the FSLIC or FDIC.
- (D) All of the above are requirements.

If choice A is selected set score to 1.

55. The American Consul has asked the Master of a vessel bound for a port in the U.S. to transport a destitute seaman back to the U.S. Which action may the Master take?

- (A) He must take the seaman even if the seaman has a contagious disease.
- (B) He is always required to take the seaman.
- (C) He may refuse to accept the seaman if the seaman is medically unfit.
- (D) He may refuse to take the seaman if it will violate the Certificate of Inspection.

If choice D is selected set score to 1.

56. The American Consul has asked the Master of a vessel bound for a port in the U.S. to transport a destitute seaman back to the U.S. Which action may the Master take?

- (A) He is required to accept the seaman only if the seaman is medically unfit.
- (B) He may refuse to take the seaman if the ship will not stop at a U.S. port within 30 days.
- (C) He may refuse to take the seaman if the seaman has a contagious disease.
- (D) He is required to take the seaman under any circumstance.

If choice C is selected set score to 1.

57. Instructions to the crew in the use of all the ship's lifesaving equipment shall be completed _____.

- (A) within one week of sailing
- (B) within any two month period
- (C) in one month and repeated quarterly
- (D) before sailing

If choice B is selected set score to 1.

58. You are the credentialed Master of a 100 GT towing vessel sailing coastwise. What percentage of the deck crew must be able to understand any order spoken by the officers?

- (A) 50%
- (B) 65%
- (C) 75%
- (D) 100%

If choice C is selected set score to 1.

59. Who is responsible for properly manning a vessel in accordance with all applicable laws, regulations and international conventions?

- (A) The (USCG) Officer in Charge of Marine Inspection
- (B) The Master of the vessel
- (C) The owner or operator of the vessel
- (D) The (USCG) Captain of the Port

If choice B is selected set score to 1.

60. Your vessel is on an extended foreign voyage. Several vacancies have occurred in your unlicensed crew through sickness and repatriation. Which statement is correct?

- (A) Qualified aliens may be employed to fill the vacancies.
- (B) Vacancies can only be filled by U.S. citizens with valid Merchant Mariner's Documents.
- (C) Seamen to fill vacancies must be flown from U.S. to join the vessel in the foreign port.
- (D) Aliens may be employed except that all U.S. flag vessels must maintain no less than 90% U.S. citizens in the crew.

If choice A is selected set score to 1.

61. A copy of the Articles of Agreement, less the signatures, is required to be posted. What is this document called?

- (A) Voyage Agreement
- (B) Shipping Articles
- (C) Forecastle Card
- (D) Articles Copy

If choice C is selected set score to 1.

62. Normally It is desirable to have screens on the vents of potable water tanks to _____.

- (A) prevent backups
- (B) prevent explosions
- (C) filter the incoming air
- (D) stop insects from entering

If choice D is selected set score to 1.

63. Normally Before taking drinking water on board in the U.S. or its possessions, the responsible person from the vessel should determine that the source _____.

- (A) is used by a city
- (B) is approved by the Public Health Service
- (C) is not from surface water
- (D) has been treated with chlorine

If choice B is selected set score to 1.

64. What is NOT a requirement for a salvage claim?

- (A) The property must be in peril.
- (B) The property saved must be "maritime property."
- (C) The salvage service must be voluntary.
- (D) The salvors must save or attempt to save any life in peril.

If choice D is selected set score to 1.

65. A clause in the charter party requires a vessel's owner to pay dispatch money when the vessel _____.

- (A) changes berths to expedite loading or discharging
- (B) loads and discharges its cargo in less time than specified
- (C) does not load and discharge its cargo in the time specified
- (D) is not ready to load or discharge cargo

If choice B is selected set score to 1.

66. Which type of carrier accepts without discrimination all legal cargoes of a shipper?

- (A) Industrial
- (B) Common
- (C) Tramp
- (D) Private

If choice B is selected set score to 1.

67. The York-Antwerp Rules relate to the _____.

- (A) minimum required number of officers and crew
- (B) ship owner's responsibilities to provide a well-found vessel in a charter party
- (C) navigation regulations that apply in the English Channel
- (D) settlement of general average claims

If choice D is selected set score to 1.

68. A fire has damaged 20 bales of cotton on a freighter loaded with general cargo. This claim would come under _____.

- (A) total loss of a part
- (B) constructive total loss
- (C) general average
- (D) particular average

If choice D is selected set score to 1.

69. A vessel arrives at the port of San Francisco from Yokohama, Japan. The passengers fill out the Baggage Declaration and Entry form. A passenger has baggage arriving on another vessel. How must this baggage be handled for U.S. Customs purposes?

- (A) It need not be declared at this time.
- (B) It must be declared on the same form and marked "Unaccompanied Baggage".
- (C) It must be declared on another form entitled "Continuation Sheet".
- (D) It must be declared only if the other vessel's name is known.

If choice B is selected set score to 1.

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

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

If choice C is selected set score to 1.