

U.S.C.G. Merchant Marine Exam
Master/Chief Mate of Unlimited Tonnage
Q102 Deck General - Part II
(Sample Examination)

Choose the best answer to the following Multiple Choice Questions.

1. What is the proper first aid for LPG in the eye?

- (A) Rub the eye area clean.
- (B) Keep the eyelid close.
- (C) Apply an ice pack to the eye.
- (D) Flush the eye with plenty of water.

If choice D is selected set score to 1.

2. Which of the following is/are TRUE regarding lashing requirements to secure vehicles aboard Ro-Ro vessels?

- (A) It is necessary for an adequate number of securing points on the vehicles themselves in order that lashings may be properly and safely utilized.
- (B) The securing of cargo on flats and trailers and in containers must be adequate to withstand both road and sea motions
- (C) The generally recommended lash angle cannot be greater than 45 degrees relative to the deck in any direction.
- (D) All the above

If choice D is selected set score to 1.

3. The securing of passenger cars on a Ro-Ro vessel requires _____.

- (A) specially designed equipment to avoid vehicle damage
- (B) simple and lightweight equipment
- (C) low labor intensive equipment
- (D) All of the above

If choice D is selected set score to 1.

4. Which cargoes require strips of common building lathe as dunnage in order to carry away heat generated by the cargo?

- (A) Canned soups packaged in crates
- (B) Refrigerated fruit that is ripening
- (C) Cardboard cartons of shoes
- (D) Paper products packaged in rolls

If choice B is selected set score to 1.

5. According to the Chemical Data Guide, piperylene possesses which characteristic?

- (A) Specific Gravity of 0.86
- (B) A boiling point of 43°F
- (C) Insoluble in water
- (D) A Reid vapor pressure of 14 psia

If choice C is selected set score to 1.

6. While on cargo watch, you notice one of the containers of Class 1 explosive materials has been damaged and some of the contents has leaked onto the deck. In accordance with U.S. regulations what actions must be taken?

- (A) Repairs can be made onboard by the crew as long as the vessel remains in port
- (B) The Master must report the incident to the COTP as soon as practical
- (C) The incident must be reported to the stevedore and repairs can be done on the vessel
- (D) Contents may be set aside until it is convenient to offload them

If choice B is selected set score to 1.

7. When must a proper look-out be kept?

- (A) Only between the hours of sunset and sunrise
- (B) Only when entering and leaving port
- (C) Only in fog
- (D) At all times

If choice D is selected set score to 1.

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

If choice A is selected set score to 1.

9. According to Coast Guard Regulations (46 CFR), when loading, or discharging oil in bulk at a dock, which of the following signals must be displayed?

- (A) A yellow flag (day), red light (night)
- (B) A signal is not required for discharging oil, only gasoline
- (C) A red flag (day), red light (night)
- (D) A green flag (day), green light (night)

If choice C is selected set score to 1.

10. Which of the following statement(s) is/are TRUE regarding twin pedestal cranes?

- (A) A slew drive system provides for rotation of each crane.
- (B) An independent slew drive system rotates the turntable.
- (C) Each crane is supplied with luff, hoist, and slew functions for crane load handling.
- (D) All of the above

If choice D is selected set score to 1.

11. Which term describes Cargoes that might leak from containers?

- (A) Wet cargoes
- (B) Dirty cargoes
- (C) Bulk cargoes
- (D) Caustic cargoes

If choice A is selected set score to 1.

12. What are the type and number of hand portable fire extinguishers required outside and in the vicinity of the paint locker exit?

- (A) One A-I
- (B) Two A-IIs
- (C) One B-II
- (D) One C-II

If choice C is selected set score to 1.

13. When the dew point of the outside air is lower than or equal to the dew point of the air in the cargo hold, which is the BEST action to take?

- (A) Ventilate the cargo holds
- (B) Shut down the intake blowers
- (C) Shut down the exhaust blowers
- (D) Secure all ventilation

If choice A is selected set score to 1.

14. Which item is NOT required to be marked with the vessel's name?

- (A) Immersion suit
- (B) Life preserver
- (C) Hand-portable fire extinguisher
- (D) Lifeboat oar

If choice C is selected set score to 1.

15. In reference to accidental oil pollution, the most critical time during bunkering is when _____.

- (A) hoses are being blown down
- (B) final topping off is occurring
- (C) hoses are being disconnected
- (D) you first start to receive fuel

If choice B is selected set score to 1.

16. Which is TRUE for atmospheres laden with coal dust or grain dust caused by loading these cargoes?

- (A) The atmosphere may be explosive in some concentrations
- (B) All dust in the atmosphere is toxic to human life
- (C) The atmosphere is subject to spontaneous combustion
- (D) This condition requires loading operations to be shut down until the atmosphere clears

If choice A is selected set score to 1.

17. Which is an example of a grade B flammable liquid?

- (A) Carbon disulfide
- (B) Allyl alcohol
- (C) Acetaldehyde
- (D) Phenol

If choice A is selected set score to 1.

18. How is Argon classified?

- (A) Flammable liquid
- (B) Flammable gas
- (C) Nonflammable gas
- (D) Corrosive

If choice C is selected set score to 1.

19. The tankship Northland is loaded as shown in table BL-0027 below. Use the salmon colored pages in the Stability Data Reference Book to determine the sagging numeral.

LONGITUDINAL BENDING STRESSES (PSI)

DESCRIPTION

1. FORE PEAK	749
2. DEEP TANK P/S	1747
3. FWD STORES	6
4. FWD BUNKERS	2867
5. FWD COFFERDAM	338
6. #1 CARGO TANK	0
7. #2 CARGO TANK	0
8. #3 CARGO TANK	0
9. #4 CARGO TANK	0
10. BRIDGE CREW	3
11. BRIDGE STORES	10
12. BRIDGE F.W.	10
13. #5 CARGO TANK	0
14. #6 BALLAST TANK	2595
15. #7 CARGO/BALLAST TANK	3315
16. #8 CARGO/BALLAST TANK	2595
17. #9 CARGO/BALLAST TANK	2595
18. #10 CARGO TANK	0
19. #11 CARGO TANK	0
20. AFT COFFERDAM	239
21. AFT BUNKERS	859
22. AFT SETTLERS	360
23. DISTILLED WATER	60
24. AFT STORES	80
25. AFT CREW	7
26. F.W. AFT	71
27. AFT PEAK	394

- (A) 49.82 numeral
- (B) 33.63 numeral
- (C) 29.70 numeral
- (D) 58.33 numeral

If choice C is selected set score to 1.

20. A high cube container would most likely be used to stow which cargoes?

- (A) Fragile cargoes
- (B) Household appliances
- (C) Dense bulk cargoes
- (D) Heavy industrial machinery

If choice B is selected set score to 1.

21. Ten triangular piles of piping on the pier are to be loaded - each pile has a 20 foot base, is 15 feet high and 30 feet long. If the breadth of the hold is 60 feet and the piping is to be stowed fore and aft in a 30 foot space, how high will it stow?

- (A) 16.6 feet
- (B) 25.0 feet
- (C) 50.0 feet
- (D) 75.0 feet

If choice B is selected set score to 1.

22. You are on a containership. Which statement about the stowage of hazardous materials in containers is TRUE?

- (A) The containers provide automatic segregation of hazardous materials except for class A explosives.
- (B) All packages within a container must be marked "This End Up" to indicate the correct stowage.
- (C) Packages of liquids within a container should be stowed on top of packages of solids to prevent crushing.
- (D) A refrigerated container with a fuel tank containing a flammable liquid must be stowed on deck.

If choice D is selected set score to 1.

23. Which topic is NOT required to be discussed at the pre-transfer conference?

- (A) Details of transferring and receiving systems
- (B) Identity of the product to be transferred
- (C) Emergency shutdown procedures
- (D) Estimated time of finishing cargo

If choice D is selected set score to 1.

24. Your vessel has 3 lifeboats on each side. What is the designation number for the middle boat on the starboard side?

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

If choice C is selected set score to 1.

25. The weight of the container and its contents is supported on deck by what part(s)?

- (A) Bottom flooring, side, and end rails
- (B) Bottom, side, and end rails
- (C) Bottom flooring only
- (D) Four lower corner castings

If choice D is selected set score to 1.

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

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

If choice B is selected set score to 1.

27. Single hull vessels operating exclusively on the Great Lakes must be dry docked at intervals not to exceed what time period?

- (A) 24 months
- (B) 12 months
- (C) 48 months
- (D) 60 months

If choice D is selected set score to 1.

28. Which statement is TRUE when mousing a cargo hook with marline or small line?

- (A) It will increase the lifting capacity of the hook
- (B) It prevents the sling ring from coming out of the hook
- (C) It protects the hook from the sling ring
- (D) It prevents the hook from spreading

If choice B is selected set score to 1.

29. When discharging clean ballast prior to entering a loading port, what must you do if it is determined the ballast exceeds 15 parts per million of oil?

- (A) the deballasting must be terminated automatically
- (B) the deballasting must be stopped until the oil can settle out, then resumed at a slower discharge rate
- (C) the deballasting must be completed only after "load on top" has been completed
- (D) the deballasting must be completely discharged in order to load

If choice A is selected set score to 1.

- 30.** The scuppers had been plugged as required at the time a small oil spill occurs on deck from a leaking dresser coupler. After shutting down the transfer, the engine room should first be informed and then which action should be taken?
- (A) Rig a fire hose to wash down the deck
 - (B) Spread an absorbent material, such as sawdust
 - (C) Sound the general alarm
 - (D) Remove the plugs from the scuppers

If choice B is selected set score to 1.

- 31.** While on watch at sea you must maintain a proper lookout at all times. You are on a 200-foot cargo vessel with an unobstructed view astern from the steering position. The vessel is being hand-steered during daylight hours in good visibility and clear of any navigational hazards. Who may be the lookout?
- (A) The officer on watch
 - (B) The helmsman
 - (C) Either A or B
 - (D) Neither A nor B

If choice C is selected set score to 1.

- 32.** If two falls are attached to lift a one-ton load, what angle between the falls will result in the stress on each fall being equal to the load being lifted?
- (A) 60°
 - (B) 75°
 - (C) 120°
 - (D) 150°

If choice C is selected set score to 1.

- 33.** As a general guide, under which condition should hygroscopic cargoes be ventilated?
- (A) When the outside dew point is 60°F (16°C) and the cargo temperature is 54°F (12°C)
 - (B) When the dew point of the air in the hold is very low
 - (C) When going from a warm to a cold climate
 - (D) When the dew point of the outside air is greater than the dew point of the air in the hold

If choice C is selected set score to 1.

34. When carrying a full or nearly full load of bulk ore in a general cargo type vessel, how should the ore be loaded?

- (A) Along the centerline
- (B) Toward the after bulkhead of all holds
- (C) In accordance with the vessels stability information booklet
- (D) Toward the forward bulkhead of all holds

If choice C is selected set score to 1.

35. Cargo pumprooms on tank vessels, constructed in 1965, handling grade C liquid cargo shall have power ventilation systems. What is time requirement for these ventilation systems to completely change the air?

- (A) 1 minute
- (B) 3 minutes
- (C) 5 minutes
- (D) 10 minutes

If choice B is selected set score to 1.

36. In accordance with U.S. regulations which signal is required to be displayed during hours of darkness if a vessel is handling Class 1 explosive materials?

- (A) One all-round fixed red light
- (B) No special signal is required during darkness
- (C) Two all-round fixed red lights
- (D) One all-round flashing red light

If choice A is selected set score to 1.

37. You are loading 530,000 barrels of cargo oil. At 0945 on 13 April, you find that you have loaded 202,000 barrels. At 1130, you find that you have loaded 223,000 barrels. When will you complete loading if you continue at the same rate?

- (A) 1322, 13 April
- (B) 1920, 13 April
- (C) 1120, 14 April
- (D) 1305, 14 April

If choice D is selected set score to 1.

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

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

If choice A is selected set score to 1.

39. What is/are the advantage(s) of cranes over conventional cargo booms?

- (A) Increased safety because the deck is clear of running and standing rigging
- (B) Simplicity of operation of the crane by its operator
- (C) Cranes are able to pick up and drop loads over a greater spotting area
- (D) All of the above

If choice D is selected set score to 1.

40. What limits the maximum theoretical stress that can be developed on a guy in a yard and stay rig?

- (A) The position of the guy
- (B) The location of the boom
- (C) The lifting capacity of the winch
- (D) The weight of the load

If choice C is selected set score to 1.

41. Which step is NOT generally taken when gas-freeing a tank?

- (A) Application of degreasing solvents
- (B) Fresh air ventilation
- (C) Removal of corrosion products and sludge
- (D) Washing the tank interior with sea water

If choice A is selected set score to 1.

42. Who will certify the vessel to be gas free before entering the shipyard?

- (A) A shoreside gas chemist.
- (B) A dedicated company representative.
- (C) A representative from the vessel's class society.
- (D) The chief officer.

If choice A is selected set score to 1.

43. A vessel has an amidships superstructure. Which location would be most suitable for main deck stowage of vehicles?

- (A) On top of No.1 hatch
- (B) On top of the hatch immediately aft of the midships house
- (C) On top of the aftermost hatch on the vessel
- (D) Beside the hatches, forward of the midships house

If choice B is selected set score to 1.

44. Where is the head block located on a boom?

- (A) At the head of the mast
- (B) At the head of the boom
- (C) At the base of the boom
- (D) On top of the jack staff

If choice B is selected set score to 1.

45. You must load as much of a large shipment of case goods as possible into a hold which has 24,400 cubic feet of space. Each case measures 2 feet by 2 feet by 4 feet and weighs 448 pounds. If you allow for broken stowage of 15%, how many long tons can be loaded?

- (A) 54
- (B) 207
- (C) 259
- (D) 351

If choice C is selected set score to 1.

46. Which statement is correct concerning the carriage of coal in bulk?

- (A) Through ventilation, as well as surface ventilation, should be provided whenever possible.
- (B) Coal should be vented with surface ventilation only.
- (C) Dunnage should be placed against ship's sides and around stanchions.
- (D) Because of its inherent vice, coal should not be loaded wet.

If choice B is selected set score to 1.

47. Which factor is MOST important in preventing sweat damage within a cargo hold?

- (A) Dew point of the outside atmosphere
- (B) Temperature of the cargo
- (C) Outside air temperature
- (D) Dew point of the cargo hold

If choice D is selected set score to 1.

48. A high cube container is designed specifically accomplish which task?

- (A) Carry low density cargoes
- (B) Protect fragile cargoes
- (C) Carry cargoes of very low stowage factors
- (D) Stow cargoes with concentrated weights such as machinery

If choice A is selected set score to 1.

49. Your tankship is carrying a 30% solution of hydrogen peroxide. The cargo containment system must have a permanent inert gas system. While discharging this cargo the inert gas system must maintain a minimum pressure of _____.

- (A) 3.0 psig
- (B) 5.0 psig
- (C) atmospheric pressure
- (D) 0.5 psig

If choice D is selected set score to 1.

50. Battens are fitted in cargo holds across the frames of the vessel from the turn of the bilge upward. What is the main purpose of these cargo battens?

- (A) To support the dunnage floors which are laid down between tiers of cargo
- (B) Used for securing a snatch block when snaking cargo into the wings of the hold when loading
- (C) To prevent cargo from coming in contact with the vessel's frames or shell plating and to aid in air circulation
- (D) To provide fittings to which cargo lashings may be secured

If choice C is selected set score to 1.