

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. Flammable liquids should have what kind of label?

- A. Red
- B. Green
- C. Yellow
- D. Skull and crossbones

Correct answer: A

2. What is the largest crew a cargo vessel may carry without having a hospital space?

- A. 6
- B. 11
- C. 12
- D. 16

Correct answer: B

3. There is a large shipment of case goods available to be loaded on your vessel. You are to load as many tons as possible in a hold which has 32,300 cubic feet left unfilled by cargo. Each case measures 2-feet high by 2-feet wide by 4-feet long and weighs 500 pounds. If you allow a broken stowage allowance of 10% of the 32,300 feet, what is the nearest whole number of tons which may be loaded?

- A. 324 tons
- B. 360 tons
- C. 363 tons
- D. 406 tons

Correct answer: D

4. Which statement is TRUE when a pilot is embarked on a vessel?

- A. The pilot relieves the officer of the watch
- B. The pilot is solely responsible for the safe navigation of the vessel
- C. The pilot relieves the Master of his duties
- D. The pilot is a specialist hired for his or her local navigational knowledge

Correct answer: D

5. Sweat damage will occur in a non-ventilated cargo hold containing cased machinery when which condition exists?

- A. The dew point of the hold is higher than the temperature of the ship's skin
- B. The outside air temperature is colder than the temperature of the cargo
- C. The air temperature of the hold is higher than the temperature of the outside air
- D. The dew point of the outside air is lower than the temperature of the cargo

Correct answer: A

6. Given a dry bulb temperature of 78°F and wet bulb temperature of 66.5°F, what is the dew point?
- A. 47.0°F
 - B. 51.5°F
 - C. 59.0°F
 - D. 70.0°F

Correct answer: C

7. Prior to handling Class 1 explosive materials, which signal(s) is/are required to be displayed by the vessel?
- A. an announcement on VHF channel 16 every hour
 - B. the Bravo flag and signs posted prohibiting smoking
 - C. the Bravo flag and a flashing red all-round light
 - D. an all-round flashing blue light

Correct answer: B

8. Which statement concerning the carriage of containers is TRUE?
- A. When stowed on deck of a break bulk ship, the bottom of the container must be evenly supported throughout.
 - B. Deck load calculations must take into account the square footage of the entire container bottom.
 - C. With tiered containers, a 40-foot container may be stowed on top of two 20-foot containers.
 - D. The Chief Mate and Master of a container ship should have the proposed stowage plan ready for the stevedore upon arrival in port.

Correct answer: C

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

Correct answer: C

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

Correct answer: B

11. What is a CORRECT reply to a pilot's request, "How's your head"?
- A. "Passing 50°"
 - B. "Checked"
 - C. "Steady"
 - D. "Eased to 10° rudder"

Correct answer: A

12. A lot of special cargo of similar cartons as shown in illustration D042DG below is to be loaded. What is the total cubic capacity the consignment will occupy if you assume 10% broken stowage?
- A. 51 cubic feet (1.5 cubic meters)
 - B. 58 cubic feet (1.7 cubic meters)
 - C. 65 cubic feet (2.0 cubic meters)
 - D. 336 cubic feet (10 cubic meters)

Correct answer: C

13. To determine the weight capacity of a deck in a cargo hold, which reference would you refer to?
- A. The cubic capacity tables
 - B. The deadweight scale
 - C. The general arrangement plan
 - D. The deck capacity plan

Correct answer: D

14. The securing systems for containers were developed to prevent container movement during which ship motion?
- A. Surge
 - B. Roll
 - C. Sway
 - D. Yaw

Correct answer: B

15. When considering a vessel's stability, which spaces in a general cargo vessel are the best locations for the carriage of bulk grain?
- A. Tween decks
 - B. Lower holds
 - C. Lower holds at the ends of the vessel
 - D. Deep tanks

Correct answer: D

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. Never exceed crane manufacturer's limits concerning the safe working loads of cargo jibs.
 - C. Cargo loaded into vehicles and/or containers prior to lifting needs to be properly secured so as to prevent shifting during transport.
 - D. All the above

Correct answer: D

17. A marine chemist issues gas free certificates and is certified by which organization?
- A. National Fire Protection Association
 - B. Marine Chemists Association
 - C. American Chemical Society
 - D. Mine Safety Appliance Association

Correct answer: A

18. You are on a US vessel loading explosives for the military and will be sailing foreign. Who is required to supervise the loading and stowage of the cargo?
- A. a USCG credentialed officer with a hazmat endorsement
 - B. a USCG credentialed officer or rating with a hazmat endorsement
 - C. an employee of the carrier designated by the Master
 - D. a USCG credentialed officer designated by the Master

Correct answer: D

19. You are berthed at a cargo facility where you have just completed discharging a dangerous cargo from your barge. You must complete topside repairs on the barge involving hot-work before sailing. Which statement is TRUE?
- A. The repair area must be inspected by a marine surveyor to ensure that it can be done safely.
 - B. The facility operator must notify the Captain of the Port before conducting welding or hot-work.
 - C. Hot-work repairs at such a facility are prohibited.
 - D. You can make repairs with permission of the facility owner since you are empty and the cargo is on the facility.

Correct answer: B

20. Which item may be substituted for, in the fireman's outfit, on a cargo vessel?
- A. Fire ax
 - B. Flashlight
 - C. Rigid helmet
 - D. Flame safety lamp

Correct answer: D

21. In relation to cargo gear, what does "SWL" mean?
- A. Ship's working lift
 - B. Starboard wing lift
 - C. Stress, weight, load
 - D. Safe working load

Correct answer: D

22. Maritime Administration personnel may be allowed in the pilothouse and on the navigation bridge. Who is responsible for these personnel while in these areas of the vessel?
- A. The Master of the vessel
 - B. The Chief Officer
 - C. The most senior person present from the Maritime Administration
 - D. The Navigational Officer

Correct answer: A

23. What is the proper first aid for LPG in the eye?
- A. Apply an ice pack to the eye.
 - B. Flush the eye with plenty of water.
 - C. Rub the eye area clean.
 - D. Keep the eyelid close.

Correct answer: B

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

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

Correct answer: D

25. What is the minimum standard for making an eye splice in a wire to be used as cargo gear?

- A. Make four tucks with each full strand.
- B. Make four tucks in each strand, cut away every other strand, and make two more tucks with each remaining strand.
- C. Make three tucks with full strands, remove half the wires from each strand, and make two more tucks.
- D. Make six tucks with each strand, removing a few wires from each strand as each additional tuck is made.

Correct answer: C

26. Which can be prevented only by segregating two lots of cargo into separate holds?

- A. Contamination of a food cargo by an odorous cargo
- B. Contamination of a clean cargo by a delicate cargo
- C. Contamination of dry cargo by a wet cargo
- D. Overcarriage, overstowage, and short landing

Correct answer: A

27. Severe exposure to chlorine gas can be fatal. Chlorine gas is primarily a _____.

- A. skin burning agent
- B. respiratory irritant
- C. nerve paralyzing irritant
- D. blood poisoning agent

Correct answer: B

28. Portable fire extinguishers must be provided for the cargo tank area of an unmanned tank barge _____.

- A. if one or more tanks are full
- B. when transferring cargo
- C. only when fully loaded
- D. only when the barge is being towed

Correct answer: B

29. A cargo of 10,000 barrels of gasoline is loaded at a temperature of 90°F, and a cargo temperature of 55°F, is expected on this voyage. It has a coefficient of expansion of .0006. How many barrels would you expect to discharge at your destination?
- A. 9790
 - B. 9994
 - C. 10210
 - D. 10410

Correct answer: A

30. 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. To provide fittings to which cargo lashings may be secured
 - C. To prevent cargo from coming in contact with the vessel's frames or shell plating and to aid in air circulation
 - D. Used for securing a snatch block when snaking cargo into the wings of the hold when loading

Correct answer: C

31. In accordance with U.S. regulations which statement is true concerning packages containing Class 1 explosive material?
- A. Defective packages of Class 1 materials may be accepted for shipment
 - B. Defective packages of Class 1 materials require a Statement of Fact to be submitted prior to loading
 - C. Defective packages of Class 1 materials may not be accepted for shipment
 - D. Defective package of Class 1 materials may be repaired onboard the vessel

Correct answer: C

32. A B-II fire extinguisher has a minimum capacity of _____.
- A. 20 pounds of CO₂
 - B. 3 gallons of foam
 - C. 10 pounds of dry chemical
 - D. All of the above

Correct answer: C

33. Which agency issues a certificate of loading that is evidence that the rules and regulations concerning bulk grain cargoes have been observed?
- A. Public Health Service
 - B. Department of Agriculture
 - C. American Bureau of Shipping
 - D. National Cargo Bureau

Correct answer: D

34. How should you signal the crane operator to use the main hoist?
- A. Use one hand to give any motion signal, and place the other hand motionless in front of the hand giving the motion signal.
 - B. First tap your elbow with one hand, and then proceed to use regular signals.
 - C. First tap the top of your head with your fist, and then proceed to use regular signals.
 - D. Extend arm with the thumb pointing up and flex the fingers in and out for as long as the load movement is desired.

Correct answer: C

35. When loading a high-density, solid bulk cargo, proper distribution of weights is necessary to _____.
- A. provide the proper trim
 - B. prevent negative stability from developing
 - C. control list
 - D. prevent excessive longitudinal stresses

Correct answer: D

36. Which standard operating procedure(s) should be adhered to on a Ro-Ro vessel?
- A. Periodic inspection and retensioning of lashings as required during voyage
 - B. Battery cables must be disconnected to prevent fire hazard
 - C. One deck engine mechanic assigned to oversee the initial loading and lashing
 - D. All of the above

Correct answer: A

37. A high cube container is designed specifically to accomplish which task?
- A. Carry cargoes of very low stowage factors
 - B. Stow cargoes with concentrated weights such as machinery
 - C. Protect fragile cargoes
 - D. Carry low density cargoes

Correct answer: D

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

Correct answer: C

39. What is an enclosure which will withstand ignition of a flammable gas, and which will prevent the transmission of any flame able to ignite a flammable gas, which may be present in the surrounding atmosphere called?

- A. primary gas barrier
- B. explosion proof
- C. a flame proof screen
- D. gas-safe enclosure

Correct answer: B

40. Which lashing gear used aboard Ro-Ro vessels should be painted or soaked in oil when not in use?

- A. Wire rope
- B. Chain
- C. Webbing
- D. All of the above

Correct answer: B

41. When steering a vessel, which of the following will an effective helmsman do?

- A. Repeat back to the watch officer any rudder commands before executing them
- B. Use as much rudder as possible to keep the vessel on course
- C. Apply rudder to move the compass card towards the lubbers line when off course
- D. Keep the rudder amidships except when changing course

Correct answer: A

42. If you are bunkering and you close off one tank in the line of tanks being filled, what happens to the rate of flow to other open tanks on the same line?

- A. The rate of flow remains constant to the open tanks
- B. The rate of flow increases to the open tanks
- C. The rate of flow stops to the open tanks
- D. The rate of flow decreases to the open tanks

Correct answer: B

43. A sling is rigged on a piece of pipe weighing 1000 lbs. The angle between the sling legs is 140° and the legs are of equal length. What stress is exerted on each sling leg when the pipe is lifted?

- A. 1318 lbs.
- B. 1366 lbs.
- C. 1414 lbs.
- D. 1462 lbs.

Correct answer: D

44. You are berthed at a cargo facility where you have just completed discharging a dangerous cargo. You must complete topside repairs involving hot-work before sailing. Which of the following statements is TRUE?
- A. The Captain of the Port may give specific approval to make hot-work repairs.
 - B. The repair area must be inspected by a marine surveyor to ensure that it can be done safely.
 - C. Hot-work repairs at such a facility are prohibited.
 - D. You can make repairs with permission of the facility owner since you are empty and the cargo is on the facility.

Correct answer: A

45. The wire rope used for cargo handling on board your vessel has a safe working load of eight tons. It shall be able to withstand a breaking test load of _____.
- A. 32 tons
 - B. 40 tons
 - C. 48 tons
 - D. 64 tons

Correct answer: B

46. The most likely time for oil pollution while bunkering is when _____.
- A. hoses are being blown down
 - B. first starting to receive fuel
 - C. final topping off is occurring
 - D. hoses are disconnected and being capped

Correct answer: C

47. You are loading 465,000 barrels of cargo oil. At 0900 you find that you have loaded 207,000 barrels. At 1030 you find that you have loaded 223,000 barrels. If you continue loading at the same rate, you will finish at approximately _____.
- A. 2100 that night
 - B. 0730 the next day
 - C. 0910 the next day
 - D. 1215 the next day

Correct answer: C

48. Cargo vessels being navigated, and fitted with emergency lighting and power systems, shall have their emergency systems tested at which interval?
- A. Once in every 12 months
 - B. At least once in each week
 - C. Once in every 6 months
 - D. At least once in each month

Correct answer: B

49. For the purpose of regulating tank vessels, which defines the term flammable liquids?

- A. Liquids that give off flammable vapors only above 80°F (27°C)
- B. Liquids that have a Reid vapor pressure of 18 pounds or more
- C. Liquids that give off flammable vapors at or below 80°F (27°C)
- D. Liquids that sustain combustion at a temperature at or below 100°F (38°C)

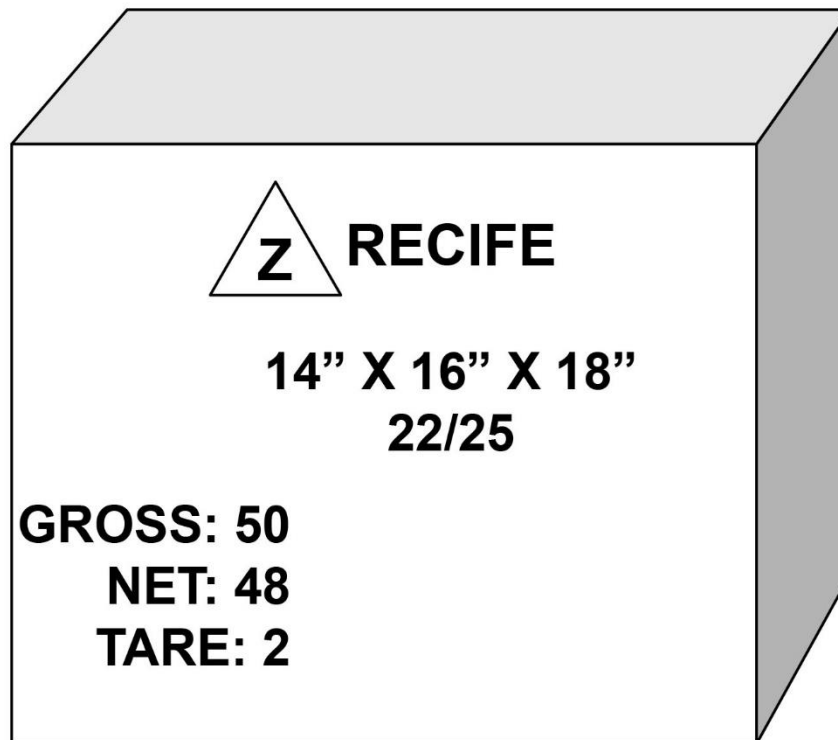
Correct answer: C

50. 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 outside air is greater than the dew point of the air in the hold
- C. When going from a warm to a cold climate
- D. When the dew point of the air in the hold is very low

Correct answer: C

D042DG



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