

U.S.C.G. Merchant Marine Exam

Apprentice Mate Steersman

Q410 Deck General

(Sample Examination)

Choose the best answer to the following Multiple Choice Questions:

1. What does the helm command "Steady as you go" mean?

- (A) Steer the course when the swing stops
- (B) Steer the course you are on now
- (C) Maintain the rate of swing
- (D) Don't allow the vessel to swing off course so much

If choice B is selected set score to 1.

2. The safe working load (SWL) of wire rope with a safety factor of 6 is what percent of its strength?

- (A) 10%
- (B) 17%
- (C) 50%
- (D) 80%

If choice B is selected set score to 1.

3. According to Pollution Prevention Regulations (33CFR), who is required to sign each completed page in the Oil Record Book?

- (A) An oil terminal representative
- (B) The master
- (C) Coast Guard representative designated by COTP
- (D) The person(s) in charge of the operation

If choice B is selected set score to 1.

4. You are preparing to load fuel oil on a vessel of 300 gross tons constructed after June 30, 1974. Before loading, which statement is TRUE concerning fuel oil tank vents?

- (A) Each vent must have a fixed containment with a capacity for at least one half barrel
- (B) All vents are opened and the flame screen removed for efficient flow
- (C) Each vent is required to have a fire extinguisher within the immediate area
- (D) The vents are not obstructed by on-deck cargo in a ten foot radius

If choice A is selected set score to 1.

5. Which type of ice is the most difficult to combat and presents the greatest hazard to shipping on the Great Lakes during the winter months?

- (A) Pack slush ice
- (B) Fast ice
- (C) Icebergs
- (D) Slow ice

If choice A is selected set score to 1.

6. Wages due a seaman may be attached by the court for which reason?

- (A) Support of a spouse
- (B) Payment of any fines imposed by the court
- (C) Payment of back taxes to the IRS
- (D) All of the above

If choice A is selected set score to 1.

7. Which statement is TRUE concerning cargo hose on tank barges?

- (A) Cargo hose must be able to withstand the shut-off head plus the static head of the cargo pump.
- (B) Cargo hose must be able to withstand the static head of the cargo pump but no less than 100 psi.
- (C) Cargo hose must be able to withstand at least 150 psi.
- (D) Cargo hose must be able to withstand the shut-off head less the static head of the cargo pump but no less than 100 psi.

If choice C is selected set score to 1.

8. The owner or Master of a towing vessel must evaluate whether the entire towline, or a part of it, is no longer serviceable. The towline should be removed from service in all cases EXCEPT _____.

- (A) when the vessel is underway
- (B) in accordance with a replacement schedule
- (C) when recommended by the manufacturer or an authorized classification society
- (D) depending on the mileage or time that the towline has been in service

If choice A is selected set score to 1.

9. When dropping anchor, you are stationed at the windlass brake. Which is the most important piece(s) of personnel protection equipment?

- (A) A hard hat
- (B) Goggles
- (C) Gloves
- (D) A long sleeve shirt

If choice B is selected set score to 1.

10. When making up a long, large coastwise tow, which of the following procedures is INCORRECT?

- (A) Safety shackles should be used when connecting to the fishplate
- (B) Rig tripping ropes (retrieving lines)
- (C) Backup wires are left slack
- (D) A chain towing bridle is generally preferred

If choice C is selected set score to 1.

11. When instructing a crew member concerning the right way to lift a weight, how should you instruct him/her?

- (A) Bend his back and stoop with arms straight
- (B) Bend his knees and lift with his legs
- (C) Arch the back to add strength to the muscles
- (D) Bend his back and stoop

If choice B is selected set score to 1.

12. Fire protection regulations for towing vessels require training in all of the following, EXCEPT which of the following?

- (A) Putting on a fireman's outfit, if the vessel is so equipped
- (B) Refilling and servicing all expended fire extinguishing equipment
- (C) Donning a self-contained breathing apparatus, if the vessel is so equipped
- (D) Activating the general alarm and reporting inoperative alarm systems and fire-detection systems

If choice B is selected set score to 1.

13. What may prevent a tug from tripping or capsizing when towing a large vessel?

- (A) Safety shackles
- (B) Norman Pins
- (C) Under riders
- (D) Surge lines

If choice B is selected set score to 1.

14. 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 designated by the Master
- (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 with a hazmat endorsement

If choice A is selected set score to 1.

15. Which item is a journal kept by the officer of the watch in which day to day happenings are recorded regarding the deck department?

- (A) The deck log
- (B) The bell book
- (C) The Official Logbook
- (D) A cargo record book

If choice A is selected set score to 1.

16. A bridle for an ocean tow consists of which components?

- (A) A single nylon pendant rove through a heavy ring free to move on the pendant
- (B) Two short legs of wire rope shackled to a fishplate
- (C) A single length of heavy chain with both ends secured on deck to welded pad eyes
- (D) Two chains of equal length

If choice D is selected set score to 1.

17. The International Maritime Dangerous Goods Code assigns classes to dangerous goods. What is the proper nomenclature for class 9 substances?

- (A) Oxidizing substances and organic peroxides
- (B) Miscellaneous dangerous substances and articles
- (C) Gases
- (D) Toxic and infectious substances

If choice B is selected set score to 1.

18. Which uninspected vessel is required to carry an efficient daylight signaling lamp?

- (A) 199 GT towing vessel on a coastwise voyage
- (B) 299 GT towing vessel on a coastwise voyage
- (C) 99 GT towing vessel on Inland Waters
- (D) 199 GT towing vessel on an international voyage

If choice D is selected set score to 1.

19. Every entry required to be made in the Official Logbook shall be signed. Who is required to sign this logbook?

- (A) Master only
- (B) Purser, one of the Mates, and some other member of the crew
- (C) Master and Chief Mate or other member of the crew
- (D) Mate on watch

If choice C is selected set score to 1.

20. Which term defines the distance that a ship moves forward with each revolution of its propeller, if there is no slip?

- (A) Pitch
- (B) Transfer
- (C) Advance
- (D) Head reach

If choice A is selected set score to 1.

21. 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.

22. Which type of fixed fire-extinguishing system is approved for use on board uninspected vessels?

- (A) Carbon dioxide
- (B) Steam smothering
- (C) Chemical foam
- (D) All of the above

If choice A is selected set score to 1.

23. Which splice is used to connect two separate lines together?

- (A) Long splice
- (B) Eye splice
- (C) Back splice
- (D) Chain splice

If choice A is selected set score to 1.

24. On uninspected vessels which statement is TRUE concerning work vests?

- (A) They may be worn during drills.
- (B) They must be stowed separately from approved life preservers.
- (C) They need not be of an approved type.
- (D) They may be substituted for up to 10% of the required lifesaving gear aboard.

If choice B is selected set score to 1.

25. The anchor chain has one entire shot of chain painted red. What is the bitter end of this shot attached to?

- (A) A ring in the deck or the bitter end of the other chain
- (B) A wire bridle system for emergency towing
- (C) A spare chain for emergency use
- (D) A pelican hook made up to an emergency marker buoy

If choice A is selected set score to 1.

26. Using a safety factor of five, determine what is the safe working load for 3-1/2 inch manila line with a breaking stress of 4.9 tons.

- (A) 0.82 ton
- (B) 0.98 ton
- (C) 2.45 tons
- (D) 12.25 tons

If choice B is selected set score to 1.

27. You are conducting trials to determine the maneuvering characteristics of your vessel. While making a turn, you take ranges and bearings of an isolated light with the results as shown. Based on this information, what is the advance for a turn of 45°? Illustration D034DG

- (A) 590 yards
- (B) 635 yards
- (C) 690 yards
- (D) 740 yards

If choice C is selected set score to 1.

28. As operator of a 199 GT towing vessel sailing foreign, it shall be your duty to enter in the Official Logbook or other permanent record which entry?

- (A) All information contained on the barge's Certificate of Inspection
- (B) All navigational aids to be used
- (C) The condition of all towing gear to be used
- (D) The barges load line and draft readings

If choice D is selected set score to 1.

29. If Annex V to MARPOL 73/78 applies to your vessel, which of the following cannot be discharged anywhere at sea?

- (A) Metal
- (B) Glass
- (C) Plastic
- (D) All of the above

If choice D is selected set score to 1.

30. An ocean towing bridle whose legs are of equal length, but too short, may cause which condition?

- (A) Unequal distribution of the load to one leg
- (B) The bridle legs jump clear of the chocks or fairleads
- (C) Excessive strain on each leg
- (D) None of the above

If choice C is selected set score to 1.

31. In illustration D038DG below, the crown of the anchor is indicated by which letter?

- (A) K
- (B) J
- (C) H
- (D) G

If choice C is selected set score to 1.

32. In illustration D024DG below what does item "A" represent?

- (A) tandem wire
- (B) scissor wire
- (C) lashing
- (D) drag wire

If choice C is selected set score to 1.

33. When picking up your mooring at the buoy, which is the correct method?

- (A) Approach the buoy with the wind and current astern
- (B) Approach the buoy with wind and sea abeam
- (C) Stop upwind and up current and drift down on the buoy
- (D) Approach the buoy with the wind and current ahead

If choice D is selected set score to 1.

34. What must Inland vessels of 100 GT and over be fitted with for oily mixtures?

- (A) A portable system to discharge oily mixtures to a reception facility
- (B) A portable system to discharge the slops overboard
- (C) A fixed system to discharge oily mixtures to a reception facility
- (D) A fixed system to discharge the slops overboard

If choice C is selected set score to 1.

35. Your vessel is loading Class 1G explosives. Which of the following statements is true concerning bunker operations?

- (A) Vessels handling Class 1 explosives may bunker during daylight only without any approval from the COTP
- (B) Vessels may not handle Class 1 explosives while taking on fuel unless approval had been granted by the COTP
- (C) Vessels containing Class 1 explosives may not take on bunkers at any time without approval by the COTP
- (D) Vessels may handle Class 1 explosives while bunkering without any approval as long as the hatches are open

If choice B is selected set score to 1.

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

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

If choice B is selected set score to 1.

37. According to the U.S. regulations, what must be agreed upon by the person-in-charge of transfer operations, both ashore and on the vessel?

- (A) The identity of the product to be transferred
- (B) The size of the slop tank required under 155.330
- (C) The status of the oily water separator
- (D) Whether or not the transferring ship is a "Public Vessel of the United States"

If choice A is selected set score to 1.

38. What is the minimum number of portable 20-B fire extinguishers required in the machinery space of a 199 GT uninspected motor towing vessel of 8000 B.H.P that was built in 2017?

- (A) 3
- (B) 6
- (C) 8
- (D) 9

If choice B is selected set score to 1.

39. Which is the Best way to reduce your wake in a narrow channel?

- (A) Apply enough rudder to counter the effect of the current
- (B) Change your course to a zigzag course
- (C) Reduce your speed
- (D) Shift the weight to the stern

If choice C is selected set score to 1.

40. Which statement concerning an accidental oil spill in the navigable waters of the U.S. is TRUE?

- (A) The person in charge must report the spill to the Coast Guard.
- (B) The Department of Interior is responsible for the cleanup of the spill.
- (C) The Corps of Engineers is responsible for the cleanup of the spill.
- (D) A warning broadcast must be made by radiotelephone.

If choice A is selected set score to 1.

41. Who may approve cargo piping to pass through a machinery space for a barge designed to carry only grade E products?

- (A) Commandant, U.S. Coast Guard
- (B) American Bureau of Shipping
- (C) Vessel owner
- (D) National Cargo Bureau

If choice A is selected set score to 1.

42. You operate a harbor craft on inland waters exclusively. If you regularly service or contact foreign flag vessels in the course of business, which statement is TRUE?

- (A) A customs official must be on board when contacting a foreign flag vessel.
- (B) All contacts with a foreign flag vessel must be reported to the U.S. Coast Guard.
- (C) Your vessel must be inspected.
- (D) Your crew must have identification credentials.

If choice D is selected set score to 1.

43. According to regulations, how many hand portable fire extinguishers are required in the cargo tank area of an unmanned, cargo pump-equipped tank barge (90 GT) while engaged in transferring grade B flammable liquids?

- (A) Three A-II or post 2017 Three 2-A extinguishers
- (B) Two B-II or post 2017 Two 40-B:C extinguishers
- (C) One B-II or post 2017 One 40-B:C extinguisher
- (D) None are required if it has a fixed system installed

If choice B is selected set score to 1.

44. Which action has a tendency to happen to a vessel proceeding along the bank of a river or channel with steep banks?

- (A) The vessel will increase speed
- (B) The vessel will hug the bank
- (C) The vessel will continue in line with the bank
- (D) The vessel will sheer away from the bank

If choice D is selected set score to 1.

45. 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 current will offset the tow
- (C) The current causes yawing
- (D) The speed of the tug and tow is less

If choice D is selected set score to 1.

46. Which structural members improve a towing vessel's chance of surviving punctured shell plating?

- (A) Transverse watertight bulkheads
- (B) The rake
- (C) Longitudinals
- (D) Stringers

If choice A is selected set score to 1.

47. Which of the following is a rope ladder with wooden rungs?

- (A) A jury ladder
- (B) A drop ladder
- (C) A life ladder
- (D) A Jacob's ladder

If choice D is selected set score to 1.

48. Which factor(s) must you consider when making up a towing bridle?

- (A) The beam of the barge
- (B) The weight of the tow
- (C) The horsepower of the tug
- (D) All of the above

If choice D is selected set score to 1.

49. What are the legs of a tow bridle joined together with?

- (A) A bridle plate
- (B) A fishplate
- (C) A hook
- (D) A tri-link

If choice B is selected set score to 1.

50. You are 15 feet off a pier and docking a vessel using only a bow breast line and stern breast line. Once the slack is out of both lines you begin to haul in on the bow breast line. What is the effect on the vessel?

- (A) The bow will come in and the stern will remain the same distance off the pier.
- (B) The bow will come in and the stern will go out.
- (C) The bow and stern come in equally closer toward the pier.
- (D) The stern will come in and the bow will remain the same distance off the pier.

If choice A is selected set score to 1.

51. In insurance terms, which describes the term Particular Average?

- (A) Losses claimed after all liens against the vessel are settled
- (B) Charges against all parties in a marine venture to pay for damages incurred to the cargo
- (C) The cargo loss sustained by only one party
- (D) The average distance steamed per day over the duration of the voyage charter party

If choice C is selected set score to 1.

52. A vessel transporting hazardous substances is required to have a Dangerous Cargo Manifest. Which organization requires this document?

- (A) The International Maritime Organization
- (B) The International Dangerous Goods Code
- (C) The National Cargo Bureau
- (D) The American Bureau of Shipping

If choice A is selected set score to 1.

53. In illustration D024DG below, what is the purpose of item "G"?

- (A) To prevent the knee from shifting when the rudder is put hard over
- (B) To keep the barges from shifting fore and aft
- (C) To distribute the vessel's thrust over a wider area
- (D) To prevent the towboat from capsizing if item I should part

If choice A is selected set score to 1.

54. Your vessel is issued a load line certificate dated 27 May 1992. Which is an acceptable date for one of the surveys for endorsements?

- (A) 26 September 1993
- (B) 28 February 1993
- (C) 28 November 1993
- (D) 27 December 1992

If choice C is selected set score to 1.

55. You are steaming in a heavy gale and find it necessary to heave to. Under most circumstances, how is this best accomplished?

- (A) Stopping the engines and drifting beam to the seas
- (B) Increasing the speed and taking the sea broad on the bow
- (C) Going slow astern and taking the seas on the quarter
- (D) Taking the sea fine on the bow and reducing the speed

If choice D is selected set score to 1.

56. The lead of a tow bridle is usually redirected with which item?

- (A) Bollard
- (B) Devil's claw
- (C) Pad eye
- (D) Chock

If choice D is selected set score to 1.

57. You are using the anchor to steady the bow while maneuvering. When do you know you have the proper scope of anchor cable out?

- (A) When the bow is held in position with the engines coming slowly ahead
- (B) When the anchor is just touching the bottom
- (C) When the cable enters the water at an angle between 60° and 85° from the horizontal
- (D) If the scope is not more than 5 times the depth of the water

If choice A is selected set score to 1.

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

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

If choice D is selected set score to 1.

59. A new crewman reports on board. He must be trained in the use of the ship's lifesaving appliances within what time period?

- (A) 2 weeks
- (B) 1 month
- (C) 2 months
- (D) Before sailing

If choice A is selected set score to 1.

60. Which term describes the section of each end of a barge which is heavily reinforced to take the pressure of pushing?

- (A) Headlog
- (B) Collision bulkhead
- (C) Bullnose
- (D) Towhead

If choice A is selected set score to 1.

61. Cargo tanks carrying grades D or E liquids on tank barges are required to be vented with which of the following?

- (A) Forced draft blowers
- (B) Branch vent lines and a vent header
- (C) Pressure-vacuum relief valves
- (D) Gooseneck vents and flame screens

If choice D is selected set score to 1.

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

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

If choice D is selected set score to 1.

63. Which signal must you display at night on a docked tank barge to show that it is loading or discharging flammable liquid cargo?

- (A) Flashing amber light
- (B) Red light
- (C) Two orange lights
- (D) ICC yellow light

If choice B is selected set score to 1.

64. 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 light signal
- (C) By visual signal
- (D) All of the above

If choice D is selected set score to 1.

65. In general, an un-reinforced vessel can safely navigate in ice provided the concentration does not exceed how many tenths?

- (A) 9 - 10 tenths
- (B) 6 - 8 tenths
- (C) 4 - 6 tenths
- (D) 1 - 3 tenths

If choice D is selected set score to 1.

66. In illustration D024DG below, which item is rigged to transmit the thrust from one barge to another barge when going ahead?

- (A) I
- (B) H
- (C) E
- (D) B

If choice C is selected set score to 1.

67. You are loading benzyl chloride and a small quantity spills on deck. According to the Chemical Data Guide, which of the following may be used as a substitute for water for the cleanup procedure?

- (A) Alcohol
- (B) Soda ash solution
- (C) Sodium carbonate
- (D) Sodium bisulfite

If choice C is selected set score to 1.

68. The regulations for a general alarm system on a towing vessel require all of the following EXCEPT which function?

- (A) Is be capable of notifying persons in any accommodation, work space and the engine room
- (B) Has a contact maker at the operating station
- (C) Has installed a flashing red light in areas that have high background noise
- (D) Must be used instead of the public address system

If choice D is selected set score to 1.

69. While transiting a channel your vessel's bow swings away from the bank. What is the term for this effect?

- (A) Bank suction
- (B) Bank cushion
- (C) Yaw
- (D) Sheer force

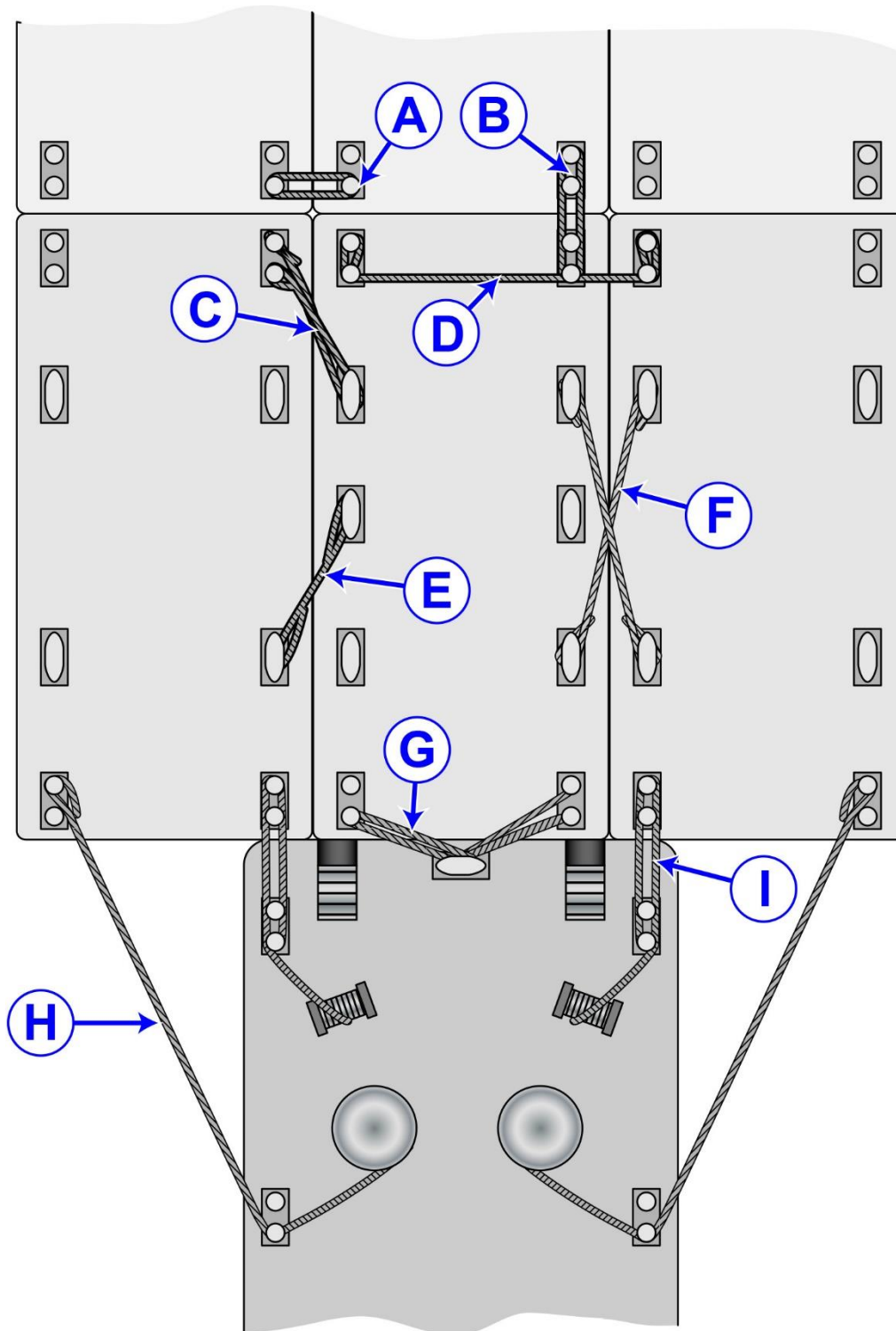
If choice B is selected set score to 1.

70. Using a scope of five, determine how many feet of chain you should put out to anchor in 12 fathoms of water.

- (A) 60 feet (18 meters)
- (B) 72 feet (22 meters)
- (C) 360 feet (110 meters)
- (D) 450 feet (137 meters)

If choice C is selected set score to 1.

D024DG



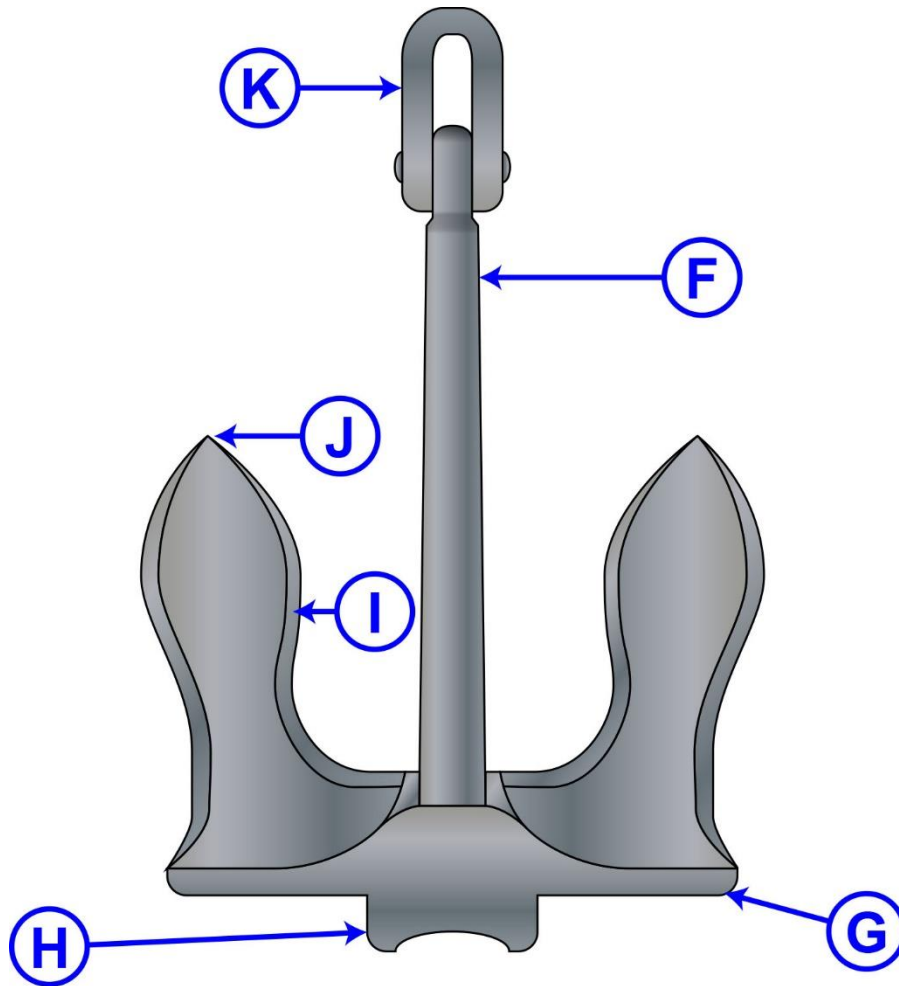
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D034DG

HEADING (TRUE)	BEARING (TRUE)	RANGE (YDS)	REMARKS
228°			INITIAL HEADING
228°	232°	2260	ON INITIAL COURSE
228°	234°	1700	RIGHT FULL RUDDER ORDERED
230°	236°	1490	
252°	235°	1275	
275°	231°	1000	
316°	214°	850	
352°	198°	975	
022°	194°	1210	
053°	197°	1430	
087°	202°	1600	
115°	209°	1690	
151°	217°	1700	
183°	225°	1600	
218°	232°	1350	RUDDER AMIDSHIPS
228°	235°	1125	STEADY ON 228°

D038DG



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