

U.S.C.G. Merchant Marine Exam
Mate Offshore Supply Vessels
Q209 Deck General
(Sample Examination)

Choose the best answer to the following Multiple-Choice Questions.

1. Which variable factor affects the initial lashing requirements aboard Ro-Ro vessels?
- A. Age of vehicle or cargo unit
 - B. Reputation of shipper concerning condition of cargo
 - C. Air pressure in the vehicles tires
 - D. Size and weight of vehicle/cargo unit

Correct answer: D

2. Which statement is TRUE when loading a tanker?
- A. Load only one tank at a time
 - B. Close valves by closing them down, reopening one or two turns, and re-closing
 - C. Keep the seamen on watch on standby in the messroom
 - D. Keep a strain on the loading hoses

Correct answer: B

3. A tank vessel transferring non-flammable hazardous cargo in bulk must display warning signs. These signs must _____.
- A. be visible from both sides and from forward and aft
 - B. indicate "NO SMOKING"
 - C. use black lettering on a white background
 - D. be displayed only while transferring cargo and fast to a dock

Correct answer: C

4. Which item is designed to be a safety stopper that prevents the anchor cable from running free if the cable jumps the wildcat?
- A. The riding pawl
 - B. The buckler plate
 - C. The devil's claw
 - D. The spill pipe

Correct answer: A

5. You are loading propanolamine and spill a small quantity on deck. According to the Chemical Data Guide, you would expect its odor to be _____.
- A. similar to ammonia
 - B. sweet
 - C. fishy
 - D. similar to turpentine

Correct answer: C

6. Which is an exception to the garbage discharge requirements in Annex V to MARPOL 73/78?
- A. The garbage to be discharged will sink.
 - B. The destination port or terminal cannot receive garbage.
 - C. A person falls overboard, and a plastic ice chest is thrown for flotation.
 - D. Garbage accumulation on board has exceeded storage space.

Correct answer: C

7. Your tank barge requires repairs that include welding. Who normally would issue a gas-free certificate?
- A. Any Coast Guard marine inspector
 - B. A certified marine chemist
 - C. The ABS marine surveyor
 - D. The port engineer

Correct answer: B

8. What is the Vapor pressure of ethylene oxide at 46°C?
- A. 48.0 (psia)
 - B. 10.9 (psia)
 - C. 15.2 (psia)
 - D. 38.5 (psia)

Correct answer: A

9. A cargo of fuel oil is loaded whose temperature is 66°F. API gravity is 36°. The volume correction factor (VCF) is .0005. A cargo temperature of 80°F is expected at the discharge port. If 9,000 barrels were loaded, how many gallons would you expect to unload?
- A. 375,354
 - B. 380,646
 - C. 491,535
 - D. 498,465

Correct answer: B

10. What is the name of the pipe or valve used to connect two separate piping systems on a tank vessel?
- A. A transfer
 - B. A crossover
 - C. A connection
 - D. A junction

Correct answer: B

11. Which statement defines the term "gross tonnage"?
- A. The weight of a grossly overloaded vessel
 - B. The weight of the vessel measured in long tons
 - C. The weight of a vessel with all tanks full
 - D. The vessel's approximate volume less certain exempt spaces

Correct answer: D

12. 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

Correct answer: C

13. On an anchor windlass, which is the proper term for the sprocketed wheel over which the anchor chain passes?
- A. The wildcat
 - B. The devil's claw
 - C. A winchhead
 - D. A brake compressor wheel

Correct answer: A

14. Under identical load conditions, nylon, when compared with natural fiber line, will respond in which manner?
- A. Nylon will stretch less and have greater strength
 - B. Nylon will stretch more and have less strength
 - C. Nylon will stretch less and have less strength
 - D. Nylon will stretch more and have greater strength

Correct answer: D

15. While discharging a tanker, how can the list be controlled?
- A. Using a center tank near the bow, discharging as necessary
 - B. Using the after peak tank, loading as necessary
 - C. Using wing tanks near the longitudinal center, discharging as necessary
 - D. By the shoreside personnel

Correct answer: C

16. What is the name of the mark indicated by the letter E in illustration D003DG below?
- A. Winter water line
 - B. Fresh water line
 - C. Tropical water line
 - D. Summer water line

Correct answer: D

17. If an electric cargo winch is being used to lift a draft of cargo and the engine room loses all power, which will occur?
- A. The load will fall rapidly to the deck unless the foot brake is engaged.
 - B. An electromagnetic brake will hold the load where it is suspended.
 - C. The load will slowly lower to the deck under control of the drag of the winch motor.
 - D. A pawl, forced by a spring mechanism, will engage the teeth of the bull gear and hold the load.

Correct answer: B

18. What does the helm command "Left twenty" mean?
- A. Put the rudder left twenty degrees
 - B. Put the rudder left twenty degrees and then ease back as the vessel starts swinging
 - C. Put the rudder hard left for the first twenty degrees of swing
 - D. Change course twenty degrees to the left

Correct answer: A

19. You have determined the maneuvering characteristics of your vessel by taking radar ranges and bearings of an isolated light while making a turn. The results are shown in illustration D035DG below. What is the transfer for a turn of 90°?
- A. 400 yards
 - B. 430 yards
 - C. 485 yards
 - D. 525 yards

Correct answer: A

20. If your propeller is racing in rough weather, which action should you take?
- A. Stop your engine until the rough weather passes
 - B. Ignore it, this is acceptable in rough weather
 - C. Decrease your engine speed
 - D. Increase your engine speed

Correct answer: C

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

Correct answer: C

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

Correct answer: C

23. Where would you find a list of the lifesaving equipment onboard your supply boat?
- A. Certificate of Inspection
 - B. U.S. Coast Guard Regulations
 - C. Ship's Articles
 - D. Muster List ("Station Bill")

Correct answer: A

24. Which characteristic is an advantage of a butterfly valve as compared to a gate valve?
- A. Less maintenance required
 - B. No resistance to cargo flow when open
 - C. Precise control over cargo flow
 - D. Quick operation

Correct answer: D

25. When is the effect of wind on exposed areas of the vessel most noticeable?

- A. When going slow ahead
- B. When backing
- C. When going full ahead
- D. When turning

Correct answer: B

26. You are transporting dangerous cargo on your vessel. Who is required to sign the Dangerous Cargo Manifest acknowledging the correctness of the document?

- A. Only the Master
- B. The shipper
- C. The Master or his authorized representative
- D. A U.S. Coast Guard Marine Inspector

Correct answer: C

27. The space containing the cylinders for the carbon dioxide (CO₂) fire extinguishing system must be designed to preclude an anticipated ambient temperature in excess of which temperature?

- A. 80°F
- B. 95°F
- C. 120°F
- D. 130°F

Correct answer: D

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

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

Correct answer: A

29. You are operating an ocean-going vessel of 322 gross tons. If your vessel does NOT have an oily-water separator then she must have a fixed piping system to discharge oily ballast to a shore facility. This system must include which item(s)?

- A. A containment capacity for at least 5 gallons at the tank vents
- B. At least two outlets accessible from the weather deck
- C. A means to stop each pump near the discharge outlet
- D. At least two pumps that may be put in line

Correct answer: C

30. Which mooring line has the most elastic elongation?

- A. Dacron
- B. Manila
- C. Polypropylene
- D. Nylon

Correct answer: D

31. When is a vessel wind rode?

- A. When the vessel must carry lee rudder
- B. When it is necessary to apply a leeway correction to the course
- C. When the vessel is backing into the wind
- D. When the vessel is at anchor and heading into the wind

Correct answer: D

32. Your tank vessels carrying grade B liquids. Regulations required that the cargo pumps be separated from all sources of vapor ignition by which item?

- A. empty cargo spaces
- B. areas equipped with power ventilation
- C. gas tight bulkheads
- D. cofferdams

Correct answer: C

33. You are underway in heavy weather and your bow is into the seas. Which action should you take to prevent pounding?

- A. Put the seas on an 85 degree angle from the bow
- B. Decrease the speed of the vessel
- C. Secure all loose gear on your vessel
- D. Increase the speed of the vessel

Correct answer: B

34. As a general rule, how will your vessel lie when it is drifting in a locale where there is no current?

- A. The beam to the wind
- B. The stern to the wind
- C. The bow to the wind
- D. With the wind on the quarter

Correct answer: A

35. What is the name of tackle number 3 as shown in illustration D029DG below?

- A. 1-2 purchase
- B. Double whip
- C. Gun tackle
- D. Single luff tackle

Correct answer: D

36. The most likely time for oil pollution while bunkering is when _____.

- A. first starting to receive fuel
- B. final topping off is occurring
- C. hoses are disconnected and being capped
- D. hoses are being blown down

Correct answer: B

37. According to Pollution Prevention Regulations (33CFR), who is required to sign each completed page in the Oil Record Book?
- A. The person(s) in charge of the operation
 - B. The master
 - C. Coast Guard representative designated by COTP
 - D. An oil terminal representative

Correct answer: B

38. Which type of ice is a hazard to navigation?
- A. Ice rind
 - B. Growlers
 - C. Frazil ice
 - D. Pancake ice

Correct answer: B

39. Which part of a windlass physically engages the chain during hauling or paying out?
- A. The devil's claw
 - B. The cat head
 - C. The wildcat
 - D. The bull gear

Correct answer: C

40. As soon as the officer in charge of the vessel has taken steps to stop the discharge of oil or oily mixture into a U.S. harbor, what must he/she do FIRST?
- A. Rig a boom on deck
 - B. Contact the Coast Guard
 - C. Inform the Environmental Protection Agency
 - D. Alert the fire department

Correct answer: B

41. Which international body is responsible for drafting the MARPOL convention prohibiting marine pollution?
- A. The International Maritime Organization
 - B. The Association of Seafaring Nations
 - C. The International Association of Shipping
 - D. The Maritime Advisory Council

Correct answer: A

42. Which document shows details of a tank vessel, cargoes it may carry, manning and safety equipment required?
- A. Safety Construction Certificate
 - B. Certificate of Inspection
 - C. Declaration of Inspection
 - D. Cargo Gear Certificate

Correct answer: B

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

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

Correct answer: D

44. If you observe any situation which presents a safety or pollution hazard during fuel transfer operations, what action should you take FIRST?

- A. Shut down the transfer operation
- B. Sound the fire alarm
- C. Close the valves at the transfer manifold
- D. Notify the person in charge of the shore facility

Correct answer: A

45. What is the primary purpose of a load line?

- A. To establish transverse stability
- B. To indicate the vessel's mean draft
- C. To establish the vessel's GM
- D. To establish maximum amidships draft

Correct answer: D

46. When the period of beam seas equals the natural rolling period of a vessel, what will most likely occur?

- A. Excessive rolling
- B. Excessive pitching
- C. Excessive yawing
- D. No change should be evident

Correct answer: A

47. Which of the following is considered "discharge" as it applies to the pollution regulations?

- A. spilling
- B. leaking
- C. pumping
- D. All of the above

Correct answer: D

48. Which document will describe lifesaving equipment located aboard your vessel?

- A. Certificate of Inspection
- B. Clearance Papers
- C. Muster List ("Station Bill")
- D. Forecastle Card

Correct answer: A

49. A flame screen _____.

- A. permits the passage of vapor but not of flame
- B. permits vapors to exit but not enter a tank
- C. prevents the passage of flammable vapors
- D. prevents inert gas from leaving a tank

Correct answer: A

50. 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?

- A. Downward and inward flow
- B. Downward and outward flow
- C. Upward and outward flow
- D. Upward and inward flow

Correct answer: D

51. U.S. regulations require any tankship making a voyage of over 48 hours duration to conduct certain tests not more than 12 hours prior to leaving port. Which of the following must be tested to meet this requirement?

- A. watertight door to the shaft alley
- B. fire pump relief valve
- C. means of communication between the bridge and engine room
- D. emergency lighting system

Correct answer: C

52. Which document is NOT required by law to be posted aboard a vessel?

- A. Certificate of Inspection
- B. Muster List
- C. Officer's licenses
- D. Official Crew List

Correct answer: D

53. Which statement about entering into a tank which has been sealed for a long time is TRUE?

- A. The tank need not be tested for oxygen content if it is ventilated for more than 24 hours.
- B. The tank should be tested only once to ensure the oxygen content is at least 14% before entry.
- C. If the oxygen content tests at less than 12% you should wear an approved gas mask.
- D. The tank must be tested at frequent intervals to ensure that hazardous gasses have not regenerated.

Correct answer: D

54. Which is the root cause of wake damage to a vessel or structure in a narrow channel?

- A. Slack mooring lines
- B. Excessive speed
- C. Trim of the vessel
- D. Improper steering of the vessel

Correct answer: B

55. Which is supplied to the vessel by the U.S. Coast Guard?

- A. Bell book
- B. Form CG-706
- C. Rough Logbook
- D. Cargo gear register

Correct answer: B

56. As you hold a piece of manila line vertically in front of you, the strands run from the lower right to the upper left. Which type of line is this?

- A. Water-laid
- B. Plain-laid
- C. Shroud-laid
- D. Left-hand laid

Correct answer: D

57. When being relieved of the helm, the new helmsman would find it handy to know which of the following?

- A. Leeway
- B. Variation in the area
- C. Deviation on that heading
- D. Amount of helm carried for a steady course

Correct answer: D

58. How long are the records of tests and inspections of a cargo vessel's fire extinguishing systems required to be kept on board?

- A. Until the next Coast Guard inspection
- B. For 1 year
- C. For 2 years
- D. Until the vessel's Certificate of Inspection expires

Correct answer: D

59. Which item indicates the maximum draft to which a vessel can legally be submerged?

- A. The load line mark
- B. The tonnage mark
- C. The Net Tonnage Certificate
- D. The Muster List ("Station Bill")

Correct answer: A

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

Correct answer: C

61. Under normal operating conditions aboard a ship, who has the overall responsibility in maintaining the Oil Record Book?

- A. Chief Engineer
- B. Chief Mate
- C. First Assistant Engineer
- D. Master

Correct answer: D

62. What is the period of validity of a Merchant Mariner Credential?

- A. 5 years
- B. 1 year
- C. 2 years
- D. 3 years

Correct answer: A

63. Which is NOT a required entry in the ship's Official Logbook?

- A. Medical treatment of an injury
- B. Dry docking of the vessel
- C. Sale of effects of a deceased crew member
- D. Inspections of cargo gear

Correct answer: B

64. Coast Guard Regulations permit which of the following systems to be used for fire prevention and the simultaneous inerting of cargo tanks on tank vessels?

- A. The deck foam system
- B. The fire main system
- C. A fixed water spray system
- D. An inert gas system

Correct answer: D

65. What are the health hazard ratings for a product of triethylbenzene?

- A. 1,1,1
- B. 0,1,1
- C. 2,2,2
- D. Unavailable

Correct answer: A

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

- A. 60 months
- B. 48 months
- C. 42 months
- D. 36 months

Correct answer: A

67. Which is a precaution you should take before bunkering?

- A. Plug the scuppers
- B. Close the lids on the vents
- C. Plug the sounding pipes
- D. Plug the vents

Correct answer: A

68. Flammable liquids should have what kind of label?

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

Correct answer: B

69. Small floes of rough, hummocky sea ice are capable of damaging a vessel. Which statement is TRUE?

- A. The floes are usually seen at night before they are close enough to provide a radar echo
- B. They are indistinguishable from sea return on the PPI
- C. They can usually be detected by radar in a smooth sea at a range of 2 to 4 miles
- D. The floes are invisible to radar when covered with a thick layer of snow

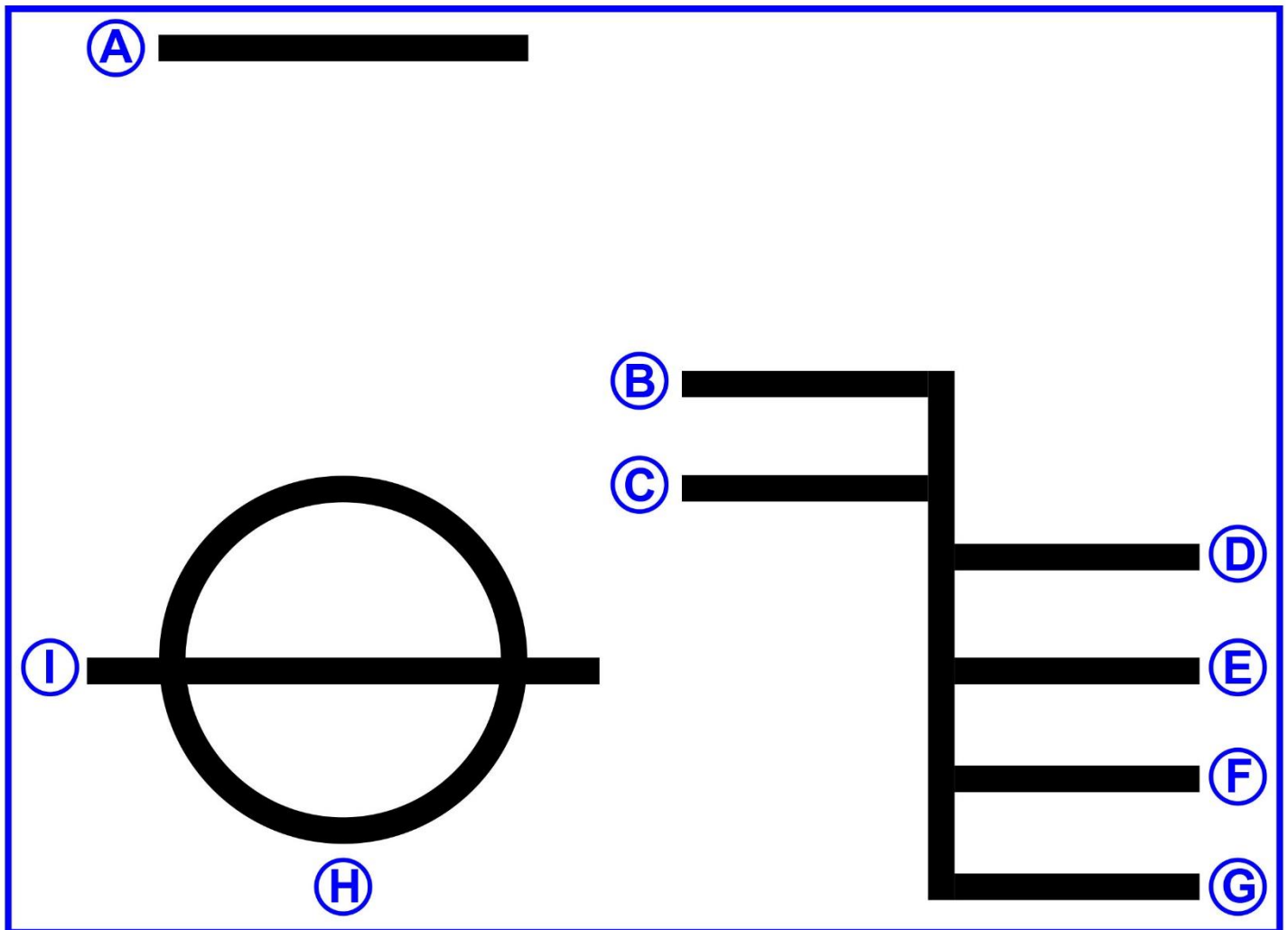
Correct answer: C

70. The most likely location for a liquid cargo fire to occur on a tanker would be _____.

- A. in the midships house
- B. in the pumproom
- C. at the main deck manifold
- D. at the vent header

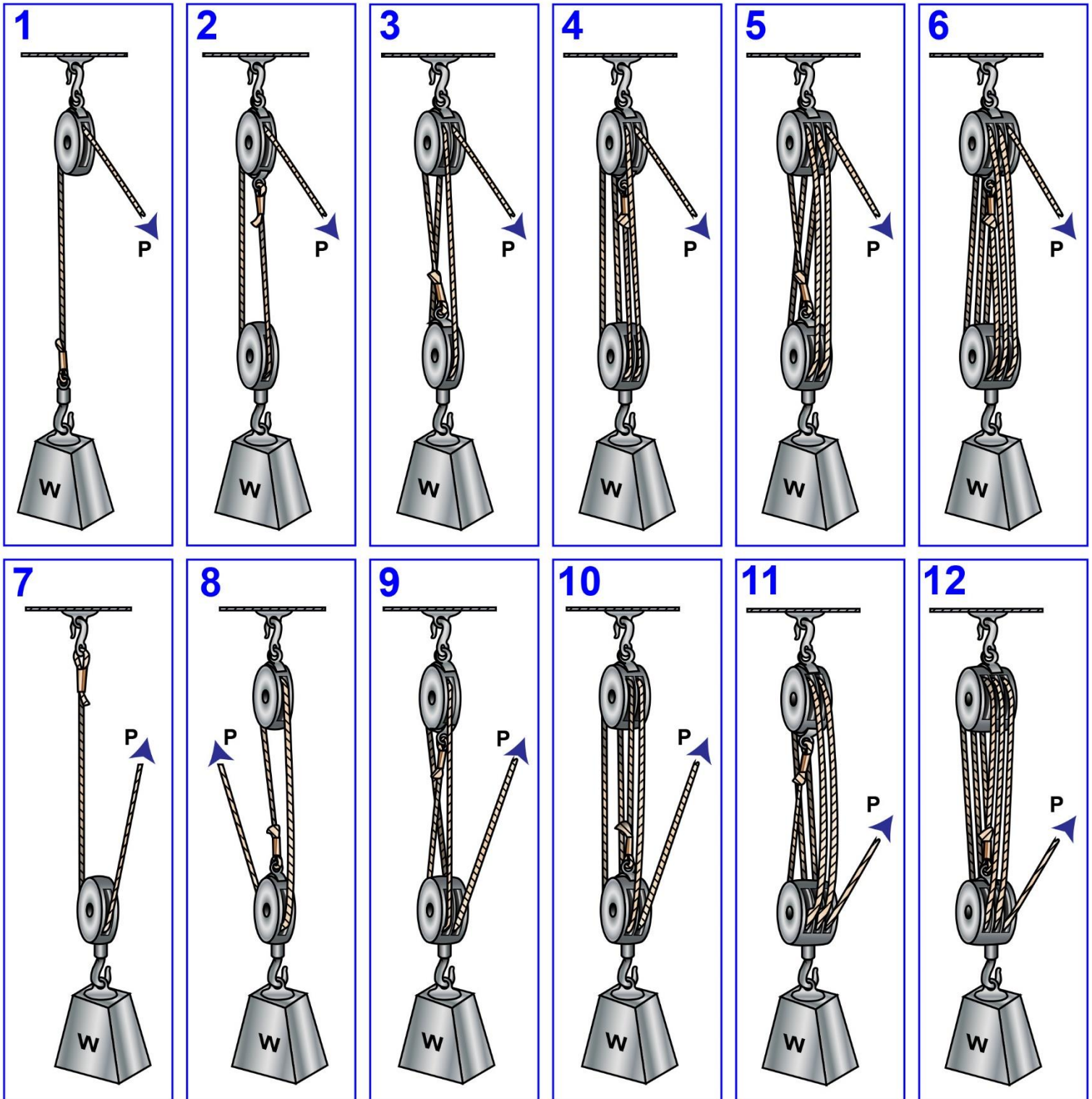
Correct answer: B

D003DG



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D029DG



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D035DG

HEADING (TRUE)	BEARING (TRUE)	RANGE (YDS)	REMARKS
333°			INITIAL HEADING
333°	315°	2125	ON INITIAL COURSE
333°	310°	1650	LEFT FULL RUDDER ORDERED
327°	307°	1475	
310°	303°	1250	
278°	302°	1050	
268°	305°	900	
236°	318°	750	
196°	337°	800	
157°	344°	1100	
113°	340°	1350	
079°	332°	1525	
050°	324°	1575	
022°	318°	1550	
343°	308°	1400	RUDDER AMIDSHIPS
333°	302°	1175	STEADY ON 333°