

Modified Deck Questions

Abs. #138604-0 - Original Question 2 - 2638

1. **An inspected vessel on an international voyage must carry which distress signals on or near the navigating bridge.**

A. 12 hand-held red flares

Incorrect: Majority chose this answer probably because the small passenger vessel regulations allow for 6 red flares and an additional 6 red flares may be substituted for the 6 orange smoke flares per 46 CFR 180.68(a)(1) and 180.68(c)(2)(ii).

B. 12 rocket parachute flares

Correct Answer: All vessels on an international voyage must carry not less than 12 rocket parachute flares on or near the vessel's navigating bridge per 46 CFR 199.60(c)(1+2)

C. 12 hand-held combination flares and orange smoke signals

Incorrect: This would only be correct under the small passenger regulations 46CFR 180.68(a)(c).

D. 6 hand-held red flares and 6 hand-held orange smoke signals

Incorrect: This would only be correct under the small passenger regulations 46CFR 180.68(a).

Answer B

Abs. #138604-1 - Replacement Question 2 - 1180

1. ***The regulations require that inspected vessels on an international voyage, other than small passenger vessels, must carry which of the following distress signals on or near the navigating bridge?***

Note: "Other than small passenger vessels" has been inserted in the stem of the question so that applicants will not use part 180 of 46CFR but go directly to part 199.

"Hand-held" has been changed to "hand" in the distractors to agree with the terminology in the Regulations.

A. 12 hand red flares

Incorrect

B. 12 rocket parachute flares

Correct Answer: All vessels on an international voyage must carry not less than 12 rocket parachute flares on or near the vessel's navigating bridge per 46 CFR 199.60(c)(1+2).

C. 12 hand combination flares and orange smoke signals

Incorrect

D. 6 hand red flares and 6 hand-held orange smoke signals

Incorrect

2. **How should you warm up a diesel engine that has not been run for some time?**
- A. **Run it at minimum speed for a period of time**
 - B. **Run it half speed for a period of time**
 - C. **Bring it to top speed immediately**
 - D. **Inject ether into the intake**

Answer B

2. **How should you warm up a diesel engine that has not been run for some time?**

Note: It is important for a mariner to know how to warm up a diesel engine in order to avoid damaging it.

- A. Run it at minimum speed until warmed to operating temperature.**

Incorrect: If a cold diesel engine is allowed to warm up by idling then the engine will not warm up evenly. Uneven heating causes water condensation to form in the crankcase. The water will get into the oil mixing with sulfur and other contaminants, which then forms a damaging sludge.

- B. Idle for a brief period of time and then warm up at half speed.**

Correct answer: A brief idle will ensure the initial lubrication and then the engine should be run at half speed in order to reach operating temperature as soon as possible. In this manner the cold oil is warmed rapidly enabling it to flow sufficiently to lubricate all parts of the engine.

- C. Bring it up to top speed immediately and run until warmed up.**

Incorrect: Bringing a diesel engine to top speed immediately can severely damage the engine due to the different expansion rates of dissimilar metals. Aluminum pistons, for example, will expand at three times the rate of the iron engine block.

- D. Inject ether into the air intake to shorten the warm up time.**

Incorrect: Ether is an aid in starting a diesel engine but has nothing to do with regulating the speed of the engine once it is running.

3. **A vessel will moor port side to a berth limited by vessels ahead and astern. Your tug should be made up to the vessel's _____.**
- A. stern on a hawser
 - B. quarter
 - C. waist
 - D. bow

Answer D

3. **Your vessel must moor port side to in a berth limited by vessels ahead and astern *using a single tug*. You are stemming a slight current and there is a light breeze off the dock. Your tug should be made up to the vessel's _____.**

Note: The stem of this question required rewording to be more specific. A sentence was added to describe the existing state of the wind and current.

A. stern on a hawser

Incorrect: This tug would be of limited use since it could only pull and not push. It would be limited in the range of its operation by the ship astern. It would be ineffective against the head current.

B. quarter

Incorrect: The tug is too far aft. There is no control over the bow which must be brought in against the breeze.

C. waist

Incorrect: A tug in this location could push the vessel in bodily but ship's lines would not be run as soon as when the bow is brought near the dock first. The fore and aft movement of the vessel would have to be controlled with the ship's engines and this would be more difficult and not as precise as by positioning with mooring lines.

D. bow

Correct answer: With the tug forward the bow is brought into the berth first in order to place the forward spring and then a bow line to position the vessel and prevent fore or aft movement alongside the dock. A tug made fast at the bow is most effective in pushing the bow of the vessel close to the dock for running lines. The stern can then be controlled to a certain extent by using the engine and rudder and riding to the forward spring line.

4. What indicates that a tropical cyclone can be expected at your position within 24 to 48 hours?

Note: The only reference that I found (Bowditch) spoke of a "pumping" of the barometer a "few hundredths of an inch" not a daily fluctuation.

A. A daily fluctuation of over 6 millibars in the barometric reading

Correct Answer: Since Bowditch states "a few hundredths of an inch" it seems realistic to equate this to approximately 2 or 3 millibars (6 to 9 hundredths of an inch of barometric pressure) surely not over 6 millibars as stated in the answer to this question. Note that 1 millibar converts approximately to 3 hundredths of an inch of mercury.

B. A sudden wind shift from southwest to northwest followed by steadily increasing winds

C. The normal swell pattern becoming confused, with the length of the swell increasing

D. An overcast sky with steadily increasing rain from nimbostratus clouds

Answer A

4. What indicates that a tropical cyclone *may be within 500 to 1000 miles of your position?*

Note: "24 to 48 hours" was changed to "500 to 1000 miles of your position" to agree with the Bowditch reference.

A. A "pumping" of the barometer up and down a few hundredths of an inch

Correct answer: "When the storm center is 500 to 1,000 miles away,....the barometer usually appears restless, pumping up and down a few hundredths of an inch." Bowditch Vol I This would equate to 2 or 3 millibars.

B. A sudden wind shift from southwest to northwest followed by steadily increasing winds

Incorrect: This would indicate the crossing of a cold front.

C. The normal swell pattern becoming confused, with the length of the swell increasing

Incorrect: A confused swell pattern would indicate they were coming from widely separated stormy areas. A lengthening of the swell would indicate that the stormy areas creating them were becoming more distant.

D. An overcast sky with steadily increasing rain from nimbostratus clouds

Incorrect: This would indicate an approaching warm front.

5. **BOTH INTERNATIONAL & INLAND** You are on a power-driven vessel "I" as shown. Vessel "II" is a vessel engaged in fishing within ½ a mile of your vessel. Which action should you take?

Note: "A power-driven vessel underway shall keep out of the way of a vessel engaged in fishing."

- A. **Hold course and speed without giving a signal.**

Incorrect: Must give way to the fishing vessel

- B. **Sound the danger signal.**

Incorrect: Sounding the danger signal implies that the fishing vessel must give way.

- C. **Sound one short blast.**

Incorrect: Answer too indefinite

- D. **Sound two short blasts.**

Incorrect: Answer is too indefinite.

There is no correct answer to this question.

5. **INTERNATIONAL ONLY** You are on a power-driven vessel "I" as shown. Vessel "II" is a vessel engaged in fishing within ½ a mile of your vessel. Which action should you take?

Note: Rule 18(a)(iii) states, "A power-driven vessel underway shall keep out of the way of a vessel engaged in fishing."

- A. **Hold course and speed without giving a signal.**

Incorrect: Rule 18(a)(iii) requires you to give way to a vessel engaged in fishing. In the situation depicted in diagram 36 you would be required to make a change in either course or speed or both to give safe clearance.

- B. **Change course or speed to avoid vessel "II".**

Correct answer: You would have to make a change in course or speed or both to keep out of the way of vessel "II".

- C. **Sound one short blast, and wait for a response.**

Incorrect: Under International Rules a one-, two-, or three-blast maneuvering signal is only sounded when the indicated action is being taken and no response from the other vessel is required. Under the Inland Rules short blast whistle signals indicate an intention and you may wait for a response. In either case the fishing vessel is not expected to respond since no consent is required. The power-driven vessel must solely take whatever action is necessary to keep well clear of the fishing vessel.

- D. **Sound two short blasts, and wait for a response.**

Incorrect: The explanation is the same as for choice "C".

6. Which gear can be used to prevent tripping?

A. The windlass

B. Chafing Boards

C. Gogeyes

This is a British term. The American equivalent is "gob ropes"

D. A hammerlock

Answer C

6. Which towing equipment can be used to prevent the tripping of a tug?

Note: The stem was too indefinite. In the original question it did not mention which type of gear or to prevent tripping of what? The tripping or girding of a tug is that state where a tug is towed sideways by an opposing force. This may happen to a tug assisting a vessel docking or undocking when the assisted vessel advances under her own power causing the towline to lead from the tug's beam and exerting a pull on it. If the tow hook is high enough and the force exerted by the towed vessel great enough the tug could be capsized.

A. Bridles

Incorrect: A bridle is a two-part span of chain or rope connected to the towing hawser to distribute the stress to the towing vessel or the vessel being towed. They do not prevent tripping of the tug.

B. Chafing Boards

Incorrect: Chafing boards are wooden boards attached to wire towing hawsers to absorb the chafing and protect the wire. They do not prevent tripping of the tug.

C. Gob ropes

Correct answer: Gob ropes are used to prevent tripping of the towing vessel. These ropes are employed to fairlead the tow line from the stern of the tug. It is when the towline leads from a location farther forward that the danger of tripping increases.

D. Drogues

Incorrect: Drogues are put over the stern of unwieldy tows to increase the drag during heavy weather.

Abs #113904-0 Original Question

7. **Which term describes a three-strand rope laid up right- or left-handed?**

Note: The stem of this question does not describe, "hawser laid" which is shown as the answer.

- A. **Soft-laid**
- B. **Hard-laid**
- C. **Sennet-laid**
- D. **Hawser-laid**

Answer D

Abs #113904-3 Replacement Question 2 - 1186

7. **Which term describes a rope in which three right-handed strands are laid up left-hand?**

Note: The stem has been amended to conform to the description of hawser-laid.

A. Soft-laid

Incorrect: This term refers to the amount of twist given to the yarns and to the strands is less than in standard lay. It increases the breaking strain and the flexibility of the line but the line is less resistant to kinking.

B. Hard-laid

Incorrect: This term refers to the amount of twist given to the yarns and to the strands is greater than in standard lay. It reduces the breaking strain and the flexibility of the line but the line is more resistant to kinking.

C. Shroud-laid

Incorrect: This is right-hand hard-laid cordage with or without a hemp core surrounded by four strand. It has only about 85% of the strength of hawser-laid cordage.

D. Hawser-laid

Correct answer: This is a rope in which three right-handed strands are laid up left-handed

Abs. #115110-0 Original Question

9. **You must take the bow line from the bow of a large vessel that is underway. In attempting to do so, your tug is caught crossways ahead of the vessel (stemming). What is the correct procedure to free your tug?**

Note: The stem needed to be enhanced and give a better description of the situation.

- A. Stop engines and the vessel's wake will carry you around to the bow**
- B. Full astern with rudder amidships**
- C. Full ahead with the rudder hard over toward the vessel**
- D. Full ahead with the rudder amidships**

Answer B

Abs. #115110-1 Replacement Question 2 - 1187

9. **You are taking the bow line from the port bow of a large vessel that is underway when the stern of your tug comes in contact with the vessel. The forward motion of both vessels causes your tug to be turned toward the vessel and contact the stem thereby being "stemmed". You should immediately _____.**

Note: When a tug is picking up the line from the bow of a vessel it must be on a parallel course to the ship. Once the stern of the tug comes in contact with the vessel the tug can no longer be steered on a parallel course. It becomes canted toward the vessel and the head current against the port bow of the tug forces it in until it contacts the stem of the vessel and that is called being "stemmed".

- A. stop engines and the vessel's wake will push you clear of the bow.**

Incorrect: The wake will not overcome the greater force of the vessel's way through the water.

- B. go full astern with the rudder amidships.**

Correct Answer: The tug must immediately go full speed astern to back away from the stem and prevent capsizing.

- C. go full ahead with the rudder hard over to starboard.**

Incorrect: This would increase the risk of capsizing since the tug with the hard over rudder would remain in contact with the stem and be turned broadside into the oncoming current.

- D. go full ahead with the rudder amidships.**

Incorrect: The tug would bring the point of contact with the stem amidships and risk capsizing.

Abs.#113923-0 Original Question

11. A normal safe working load for nylon rope is _____.
- A. 20% of the breaking strain
 - B. 40% of the breaking strain
 - C. 50% of the breaking strain
 - D. 60% of the breaking strain

Answer A

Abs #113923-3 Replacement Question 2 - 1190

11. A normal safe working load for used nylon rope in good condition is _____.
- A. 10% of the breaking strain
Incorrect: A safety factor of 10 is too great and not justified economically.
 - B. 25% of the breaking strain
Correct Answer: A safety factor of 4 is what is stated by the United States Naval Institute as the correct safety factor for used nylon rope in good condition.
 - C. 33% of the breaking strain
Incorrect: A safety factor of 3 is not enough for safety considerations.
 - D. 50% of the breaking strain
Incorrect: A safety factor of 2 is not enough for safety considerations.

Abs. #115428-1 Original Question

12. **Which statement is TRUE about the use of a “gogeye”?**

Note: The term “gogeye” is a British term and the distractors appeared weak.

- A. **The gogeye is a precalculated form and ready reference for use by the tug captain.**
- B. **The tug can be drawn under its towline by using a capstan to heave in on the gogeye.**
- C. **The gogeye is an instrument fitted over the towing winch that transmits warnings of dangerous hawser angles to the pilot house.**
- D. **Gogeyes cannot be used to prevent tripping a tug.**

Answer B

Abs. #115428-4 Replacement Question 2 - 1191

12. **Which statement is TRUE about the use of a “gob rope”?**

Note: The British term “gogeye” was changed to the American equivalent “gob rope”.

- A. **The gob rope is a mooring line for tying up lighters working cargo alongside a vessel anchored in an open roadstead.**
Incorrect: The above-described line is commonly called a “Callao rope”.
- B. **The gob rope is used to secure the towline aft over the centerline of the tug.**
Correct Answer: The gob rope is generally a 3” circumference Dacron line with a shackle through which the main tow hawser passes and is used to keep the towline aft on the centerline of a tug to maintain better control over the tow. It also prevents the towline from changing its lead from aft to amidships and “tripping” the tug risking capsizing it. Alternatively, $\frac{5}{8}$ ” wire is used as a gob rope.
- C. **The gob rope is a line hung over a vessel’s side to assist in boarding.**
Incorrect: This rope would be called a manrope.
- D. **The gob rope is a rope used in mooring a vessel to a buoy.**
Incorrect: This rope would be described as a “hook rope”.

Abs. #119805-0 Original Question)

13. The most probable position of the object of a search at any given time is the _____.

This question has two correct answers. Both "A" and "B" are correct.

- A. datum
- B. estimated position
- C. search point
- D. initial point

Answers A and B

Abs. #119805-2 Replacement Question 2 - 1198

13. The most probable position of the object of a search at any given time is the _____.

A. datum position

Correct Answer: The datum position is found by advancing from the incident position or last computed position, the drift distance in the drift direction. The datum position is the most probable position of the object of the search at any given time.

B. incident position

Incorrect: The incident position is where the accident occurred and does not take into account the set and drift.

C. reported position

Incorrect: Likewise, the reported position does not take into account the lapse in time and set and drift of the current since the report.

D. dead-reckoning position

Incorrect: The dead-reckoning position takes into account the passage of time but does not allow for set and drift and is not as probable a position as the datum position.

Abs. #110221-0 Original Question

14. The Tonnage Certificate indicates _____.

Note: The Tonnage Certificate not only shows the net tonnage but also the gross tonnage and all deductible spaces from which the net tonnage is derived. It also identifies the exempted areas. For this reason there are two correct answers to this question that are "C" and "D".

A. deadweight tons

Incorrect:

B. displacement tons

Incorrect:

C. net tons

Correct Answer: The Tonnage Certificate indicates a vessel's net tonnage.

D. gross tons

Incorrect: The Tonnage Certificate shows a vessel's gross tonnage.

Answers "C" and "D"

Abs.#110221-1 Replacement Question

2 - 1207

14. The Tonnage Certificate indicates _____.

Note: "Most taxes and fees which are levied against vessels by the various governments are assessed on the basis of so much per net registered ton." This certificate also includes ".....all particulars of the under-deck tonnage, the items included in the gross tonnage and those items which have been deducted in order to obtain the net registered tonnage; also particulars of all spaces which have been exempted from measurement."

A. deadweight tons

Incorrect: This is the vessel's lifting capacity or the number of tons a vessel may carry when loaded in salt water to her summer load line. Deadweight tonnage is not shown on the Tonnage Certificate.

B. displacement tons

Incorrect: This is the total weight of a vessel or the number of tons of water that a vessel displaces. It is the sum of the light displacement and deadweight tonnages. It is not shown on the Tonnage Certificate.

C. net tons

Correct Answer: The Tonnage Certificate indicates a vessel's net tonnage.

D. light displacement tons

Incorrect: This is the "weight of a vessel when unloaded." It is not shown on the Tonnage Certificate.

Abs. #114172-3 Original Question

- 15. When making a mooring wire fast to bitts it is recommended that you _____.**
Note: Wire is rarely used for mooring purposes due to its inelasticity but there are other occasions when it is made fast to bitts. The word "mooring" was removed from the question stem and the question remains valid.
- A. use only figure eights**
 - B. take 2 round turns around one bitt, then make figure eights**
 - C. take 3 round turns around both bitts, then make figure eights**
 - D. alternate round turns and figure eights around both bitts**

Answer C

Abs. #114172-6 Replacement Question 2 - 1208

- 15. When making a wire fast to bitts it is recommended that you _____.**
Note: Wire is made fast to bitts not only for mooring but also for other purposes such as "insurance wires" and emergency tow pendants.
- A. use only figure eights**
Incorrect: Round turns around both bitts should be taken first since they are faster to put on and then followed by the figure eights. Speed in taking the turns is important in case of failure of the stopper on the wire.
 - B. take 2 round turns around one bitt, then make figure eights**
Incorrect: This would take longer to put on and bending the wire around a single bit would create too much friction and wear on the wire.
 - C. take 3 round turns around both bitts, then make figure eights**
Correct Answer: This is the recommended procedure in making wire fast to bitts. In addition, lashing should be placed around the wire where it crosses between the bitts.
 - D. alternate round turns and figure eights around both bitts**
Incorrect: This is not the recommended procedure in making wire fast to bitts.

Abs# 138791-0 Original question

16. What is NOT characteristic of the conditions which would be experienced by a vessel located south of an approaching eastward-moving storm center on the Great Lakes?

Note: If you are due south of eastward moving storm then it is not "approaching". The location must be southeast of the storm.

A. Falling barometer

True: When a storm is approaching you the barometer is falling

B. A westerly wind

True: If you are to the south of an approaching storm the wind would be westerly

C. Lowering clouds

True: When a storm is approaching the clouds are becoming lower.

D. Rain or snow

True: When a storm is approaching you should expect precipitation.

There is no incorrect answer that satisfies this negative question.

Abs# 138791-1 Replacement question 2 - 1212

16. What is NOT characteristic of the conditions, which would be experienced by a vessel located southeast of an approaching eastward-moving storm center on the Great Lakes?

A. A rising barometer

Correct Answer: A rising barometer would NOT be experienced as the storm approaches. It would be falling.

B. A westerly wind

Incorrect: The wind would be westerly making this an incorrect answer to this negative question.

C. Lowering clouds

Incorrect: The clouds would be lowering making this an incorrect answer to this negative question.

D. Rain or snow

Incorrect: The wind would be westerly making this an incorrect answer to this negative question.

(Absolute #122576-0 Original question) 3 - 2906

18. The accuracy of an azimuth circle can be checked by _____.

- A. sighting a terrestrial range in line and comparing the observed bearing against the charted bearing
- B. aligning the relative bearing markings so that 000° is on the lubber's line and the line of sight passes over the center of the compass
- C. ensuring that the alignment marks on the inner face of the circle are in line with those on the repeater on relative bearings of 000° and 090°
- D. comparing differences between the observed azimuth and the computed azimuths of two celestial bodies on two separate azimuths

Answer D

Answer "D" is not exactly what it states in the reference to this question, Bowditch Vol I. Answer D in the replaced question is taken from Bowditch Vol. I, page 168.

(Absolute #122576-1 Replacement question) 3 - 1791

18. The accuracy of an azimuth circle can be checked by _____.

- A. sighting a terrestrial range in line and comparing the observed bearing against the charted bearing
Incorrect: This only checks the compass error not the accuracy of the azimuth circle.
- B. aligning the relative bearing markings so that 000° is on the lubber's line and the line of sight passes over the center of the compass
Incorrect: These adjustments are not possible to make on an azimuth circle.
- C. ensuring that the alignment marks on the inner face of the circle are in line with those on the repeater on relative bearings of 000° and 090°
Incorrect: This would have no effect on checking the accuracy of an azimuth circle.
- D. comparing observed azimuths at different altitudes with computed values at the times of observation to see if the difference is constant
Correct Answer: The differences between the observed and the computed azimuths should remain constant if the compass error remains constant throughout the observations.