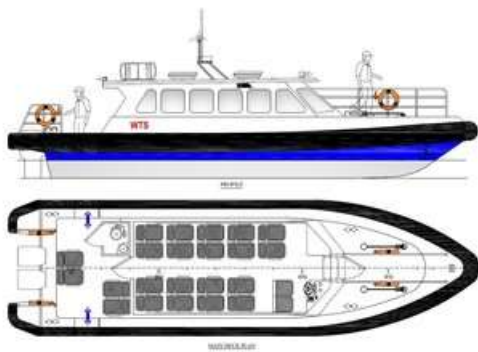


Sample Questions
for
Master Class 3 (Serang)

Parts of a Boat:

1. Identify and show the following parts of a boat in the given diagram/picture.

Port, Starboard, Bow, Stern, Mast, Railings, Rudder, Propeller, Bridge, Masthead light, Deck, Hull, Gunwale, Forward, Aft, Length, Breadth, Draft marks, Freeboard, Fender, Life buoy, Life raft, Foc'sle, Poop, and accommodation.



Seamanship:

1. Write any four types of inland motor vessel.
2. Write any two types of ropes used on ships.
3. Name any two types of natural fiber ropes used on ships.
4. Name any two types of synthetic fiber ropes used on ships.
5. Write any two uses of ropes on ships.
6. What are the two directions in which the strands of ropes are twisted?
7. Write any four reasons for widely use of synthetic ropes on ships.
8. Write any four care of synthetic ropes which you will take for safe use.
9. What is SWL of a wire rope? How will you estimate the same from its Breaking Stress? If its breaking stress is 6 tonnes, what will be the SWL?
10. Write any two characteristics that determine the wire rope requires discarding.
11. Write any two purposes for whipping of rope ends.
12. Name any four knots used by seafarers on ships.
13. Write two uses of "Overhand" knot.
14. Write two uses of "Figure of Eight" knot.
15. Write two uses of "Bowline" hitch.
16. Write two advantages in using "Bowline" hitch.
17. List any four common Bends in use on ships.
18. List any four common Hitches in use on ships.
19. Write two uses of "Clove hitch".

20. Why is it necessary to put a Monkey's Fist on a heaving line?
21. Write two uses for Splicing of Ropes.
22. Name any two types of Splice of Ropes.
23. Sketch a D Shackle and name its parts.
24. Write the meaning of SWL (3) T, stamped on a shackle in not more than four lines.
25. Write two purposes for mousing a hook or shackle.
26. Write two uses of Bulldog grips on wires.
27. Write two purposes for use of the appliance "Hand Lead".
28. Write in not more than four lines, the way you will determine the bottom of sea-bed.
29. Write in not more than four lines, how the forward of a vessel is secured to a wharf.
30. Write in not more than four lines, how the stern of a vessel is secured to a wharf.
31. Name any four forces an I.V vessel is subject to while secured to an open berth.
32. Write the two purposes for using blocks on ships.
33. Name any four types of blocks used on ships.
34. Write any two markings that you will find on the shell of a wooden block.

ROR:

1. Define power-driven vessel, vessel not under command, vessel restricted in her ability to manoeuvre, underway and restricted visibility.
2. Explain responsibilities of a look-out man in not more than four lines.
3. Explain Rule 5 (Look out) in not more than four lines.
4. Write the two reasons for proceeding at a Safe Speed by all vessels.
5. Write any four factors to be taken into account for determining Safe Speed by all vessels.
6. Write in not more than four lines, how will you determine if risk of collision exists?
7. Write in not more than four lines, necessary action to be taken by you to avoid collision at sea.
8. Write in not more than four lines, your responsibility during navigating in a narrow channel.
9. When shall a vessel be called an overtaking vessel?
10. Explain Rule 13 (overtaking) in not more than four lines.
11. Explain Rule 14 (head on situation) in not more than four lines.
12. Explain Rule 15 (crossing situation) in not more than four lines.
13. Explain Rule 16(action by give-way vessel) in not more than four lines
14. Name the four types of vessels a power-driven vessel underway shall keep clear.
15. Write any four precautions which you will observe during navigating in restricted visibility.
16. Write two occasions when you will switch on navigation lights on ships.
17. Define Masthead light, Side lights, Stern light and towing light.
18. What lights shall a power driven vessel of 60 meter in length underway show?
19. What lights shall a towing vessel show when the length of the tow is 180 meter?

20. What lights shall a vessel not under command show when is making way through the water?
21. What lights shall a vessel engaged in pilotage duty show?
22. What lights shall a vessel at anchor and engaged in pilotage duty show?
23. What lights shall a vessel at anchor show?
24. What lights shall an aground vessel show?
25. Draw a vessel at anchor and show on it the day signal for vessel of length 60 meters.
26. Draw an aground vessel and show on it the day signal for length of vessel 40 meters.
27. Write the meaning of the maneuvering sound signals – 1 short blast, 2 short blasts and 3 short blasts.
28. Write the meaning of the maneuvering sound signals – 1 short blast, 2 short blasts and 3 short blasts.
29. What sound signals shall a vessel overtaking another in narrow channel sound?
30. How shall a vessel about to be overtaken indicate her agreement to an overtaking vessel?
31. How shall a vessel in doubt indicate such doubt to another vessel in sight?
32. How shall a vessel approaching a bend answer to the sound signal heard from another vessel?
33. What sound signal shall a power driven sound underway but stopped in fog?
34. What sound signal a vessel of 40 meters in length shall make in fog when not in command?
35. What sound signal a dredging vessel shall make when underway but stopped in fog?
36. What sound signal a towing vessel shall sound when underway but stopped in fog?
37. What sound signal a vessel in length 60 meters at anchor shall sound in fog?
38. What is the additional sound signal for a vessel in length 40 meters at anchor in fog?
39. What is identity sound signal for a pilot vessel in fog?
40. What light signal shall a vessel make for attracting the attention of another vessel in sight?

Maintenance:

1. How does rust form on the steel decks of a barge?
2. What is "Corrosion" and how it can be prevented?
3. Why is it necessary to paint the surface of steel decks of a ship?
4. Why are "Primers" used as a first coat?
5. Why is it necessary to give at least two finish coats of paints?
6. Write any four types of brushes used on ships.
7. How will you distinguish a good brush from a bad brush?
8. Write the four ingredients of paints used on ships.
9. What is the purpose of 'Binder' in paint?
10. What is the function of "Solvent"?

11. What causes "Blistering" in paint surfaces?
12. How will you prevent "Skinning" in paint?
13. What causes "Yellowing" of white paint?
14. Why is it recommended to mix a little blue with white paint?
15. Write any four precautions that you will observe during painting.
16. What causes "Peeling" of paint?
17. Write two causes for dulling of paint.
18. Write in not more than four lines the preparation you will make for painting steel decks.
19. What is the main difference between Anti-fouling and Anti-corrosive paints?
20. Name any four top coat paints used on ships.
21. Write any two types of paints?
22. Write any four maintenance works done on a boat in dry-dock.

Navigation and Bridge Equipment:

1. What is course of the vessel?
2. How does the course of a vessel help a navigator?
3. What are leading lights found in a port?
4. Write any two advantages of the leading lights found in a port.
5. How does a Magnetic Compass vary from Gyro Compass?
6. How many scales are there on a navigational chart?
7. Name the scales on a navigational chart.
8. Which scale is used for measuring distance on a navigational chart?
9. What is compass error?
10. If variation is 6° W and Deviation for the ship's head is 4° W, then what will be the compass error?
11. If variation is 8° E and Deviation for the ship's head is 3° W, then what will be the compass error?
12. If variation is 7° W and Deviation for the ship's head is 9° E, then what will be the compass error?
13. Given compass course 042° (C) and Error 8° W, find the true course.
14. Given compass course 142° (C) and Error 6° E, find the true course.
15. Given true course 142° (T) and Error 6° W, find the course to steer.
16. Given true course 236° (T) and Error 9° E, find the course to steer.
17. Find the compass course to steer, if the true course is 045° (T), Variation 6° W and Deviation 3° E.
18. Given Gyro heading 224° (G) and error 2° (L), find the True course.
19. Given True course 340° (T) and error 2° (H), find the Gyro course to steer.
20. Name any two navigational aid in a port used for safe navigation.
21. Name any two equipment on bridge used for position fixing.
22. Write any two functions of AIS on bridge.

23. Name two bridge equipment used for taking bearing of an object.

Meteorology:

1. What is visibility?
2. Name any four cases when the visibility can be reduced at sea.
3. Name the four seasons prevalent on the coast of Maharashtra in a year.
4. Explain Mist, Fog and Haze.
5. Write any four warning signs of an approaching cyclone.
6. What are the worst months for cyclones in Arabian Sea?
7. Write any four precautions you will observe for a cyclone approaching your vessel in port.
8. Write two favorable conditions for formation of thunder storms.
9. What is Elephantas?
10. Write any two signs of withdrawal of SW'ly monsoons across Maharashtra Coast.
11. Name any two instruments used for weather forecasting on vessels.

Cargo Work:

1. Write any four precautions you will observe while loading ore cargoes.
2. Write any four precautions you will observe for putting a loaded barge to sea.
3. Write any four precautions you will observe while cleaning holds in passage.
4. Why is it required for a barge to take in ballast when sailing with empty holds?
5. What is SWL? Where will you find the SWL a hoisting rope?
6. What is Breaking Stress? How does it differ from SWL?
7. Write any four information you will find in the test certificate of a rope.
8. What are the four major hazards associated with coal cargoes?
9. Write four precautions you will observe while carrying coal cargoes.

Safety:

1. Define Enclosed Space. Name any four enclosed spaces you will find in a vessel.
2. Write any four precautions you will observe before entering into an enclosed space.
3. Write any four precautions you will observe working on mast at sea.
4. Write any four precautions you will observe working over side.
5. Write any four precautions you will observe carrying out hot work on deck?
6. Write any four actions you will take following collision of own vessel with other.
7. Write any four actions you will take following grounding of own vessel.
8. Write any four precautions you will take before bunkering of the vessel.

Handling of Passengers:

1. Write any four checks you will carry out on passengers before boarding them.
2. Write in four lines how you will handle a difficult passenger.
3. Name four items that passengers are prohibited to carry in their baggage.
4. Where will you find the capacity of passengers to be carried in a boat?
5. Name any four safety equipment you will familiarize the passengers upon their boarding.

Vessel Maneuvering:

1. What is considered shallow water for maneuvering?
2. Write in four lines how shallow water will effect maneuvering of a ship.
3. What is squat effect? How will you minimize it?

I.V Rules, Administration and Communication:

1. What is the period if fair weather in the Arabian Sea?
2. What is the period of fair weather in the Bay of Bengal?
3. Name any four ship's certificates which are to be kept valid for operating.
4. What is validity period of Certificate of Survey?
5. Write any four information you will find in the Certificate of Survey.
6. Expand ISPS? What are the ISPS levels?
7. What is Boat Note?

ETA and Fuelling Calculation:

1. A boat leaves a port at 1242 hours on 30th October. She travels at 6 knots for first 3 hours and at 4 knots the remaining hours. If the distance to its destination is 34 NM, what time shall the boat arrive?
2. A barge is capable of bunkering at the rate of 3 KL per hour. She bunkers at the rate of 2 KL per hour for first 4 hours and increases to its maximum rate. She completes bunkering in 9 hours. Find the total quantity of bunkers taken in by the barge?

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