

SAS INLAND WATERS SKIPPER PRACTICAL AND ORAL GENERAL KNOWLEDGE QUESTIONS

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This list of questions has been generated to give the candidate some feel for the range of questions that could be asked during the practical and oral examination. The list is not exhaustive. You should be prepared to answer questions on any topic covered in the syllabus.

KNOTS AND ROPEWORK

1. Demonstrate each of the following knots and describe when you would use them:
 - a figure of eight
 - a clove hitch
 - a round turn and two half hitches
 - a reef knot
 - a single and double sheet bend
 - a rolling hitch
 - a bowline
2. Demonstrate how you would heave a line
3. Demonstrate how you would lasso a buoy
4. What kind of rope would you select for a tow line? Why?

CHARTWORK AND NAVIGATION

1. How many meters in the international nautical mile?
2. What is a meridian? Show me one on the chart.
3. What is a parallel of latitude? Show me one on the chart.
4. Plot a fix using your hand bearing compass.
5. Plot a fix using a GPS.
- 6.
7. Do you use the latitude scale or the longitude scale to measure distance in nautical miles?
8. Where on the chart can you find magnetic variation? Show me.
9. Explain this feature on the chart (This could be any feature that is relevant to the safe navigation of a recreational vessel)



GPS

Please remember that you are expected to have a GPS or chart plotter on board for your practical exam. A hand held GPS is acceptable.

1. Describe very briefly how GPS works. How many satellites do you need to get a proper fix?
2. You have a simple hand held GPS. You notice that it gives you a “heading”. The heading jumps all over the show when you stand still but settles down to a steady reading if you walk in a straight line. Explain what is happening.
3. Demonstrate how you would use a GPS to fix your position on a chart.

INSTRUMENTS

1. How would you check the calibration of your log?
2. How would you check the calibration of your depth sounder?
3. What is a lead line? What would you use for a lead line on this boat?
4. Demonstrate the use of your hand bearing compass. How would you use it at night?

WATER LEVELS

1. Where can you find the current water level?
2. Explain how you can use the water level and depth contours to determine the actual depth of water.

COLREGS AND IALA

Although the written exam will test your knowledge of Colregs and IALA, the examiner is likely to test you again on these issues in practical situations.

1. What is a north cardinal buoy? Is the danger on the north side or the south side of the buoy? Should you pass north of the buoy or south of the buoy?
2. What lights must a power boat exhibit at night?
3. What lights must a sailing vessel exhibit at night?
4. What lights must a vessel at anchor

BOAT HANDLING UNDER POWER

1. What is prop walk?
2. Does your yacht (or the yacht on which you are being examined) exhibit prop walk? Which way does your stern to swing when you give a short burst of astern power?
3. Demonstrate bringing your yacht on and off your moorings under power.
4. Demonstrate bringing your yacht alongside a jetty under power
5. Demonstrate springing off a jetty under power.

SAILING

1. Demonstrate hoisting and dropping your sails.
2. Your engine fails on the way out of harbour. Which sail would you get out first, and why? Demonstrate.
3. Your engine failed and you hoisted your foresail quickly. You are now sailing on your foresail. Demonstrate how you hoist your main. You may not use your engine (it failed remember).
4. Demonstrate reefing and shaking out a reef.
5. Demonstrate tacking and gybing giving appropriate commands to your crew.
6. Brief your crew on the correct way to gybe.

7. Brief your crew on the risks and dangers associated with an accidental gybe.
8. Demonstrate putting on a gybe preventer.
9. Demonstrate sailing on different points of sailing, setting your sails appropriately
10. Explain how you use the telltales on your foresail and mainsail to set the sail correctly.
11. Demonstrate heaving to.
12. Demonstrate picking up a buoy under sail.

MAN OVER BOARD

1. What precautions could you take to prevent a MOB incident from occurring?
2. Demonstrate picking up a MOB. You may use your engine
3. Describe the alternative ways you could use to get the MOB on board.

WEATHER

Weather forecasts

1. What weather forecasts do you personally use to plan your sailing.

Thunderstorms

1. What cloud is associated with thunderstorms?
2. Under what circumstances would you expect cumulonimbus to develop?
3. What shape might you see at the top of a towering cumulus cloud to indicate that you have a fully developed cumulonimbus? ?
4. What actions would you take when you see a thunderstorm approaching?

FIRST AID AT SEA

1. How would you recognise and treat hypothermia?
2. How would you treat burns?
3. Do you have a First Aid reference book on board?

DIESEL ENGINES

1. Where are the spark plugs and how do you change them?
2. What can you do to minimise the risk of fungal growth in your diesel?
3. Your starter motor works fine but your diesel engine does not want to start. What are the likely causes? Describe your actions to resolve the problem.
4. What engine checks would you do before you go sailing? Demonstrate.
5. How would you change the cooling water impeller?
6. What checks do you do to ensure that your battery system is in good health?



SAFETY AND EMERGENCIES ON THE WATER

1. You are out sailing when your mast breaks. Describe your actions.
2. Discuss the various precautions you would take to minimise the risk of a gas explosion.
3. Your boat is moored in a marina. As you climb on board and go below you get a strong smell of gas. Describe your actions.
4. You are out sailing. As you go below you get a strong smell of gas. Describe your actions.
5. Discuss the various types of fire extinguisher and when you would and would not use each type.
6. What are the likely causes of a fire or explosion aboard a sailing boat? What precautions would you take to minimise the risk of fire on board?
7. Your boat is holed and flooding. What can you do to reduce the rate at which water is coming into the boat?
8. Your boat is holed and flooding. You have done your best to staunch the flow, but the water is still coming in faster than the bilge pump or pumps can pump it out. What other options do you have to get more water out?
9. Describe the precautions you would take in fog. How would you navigate in fog?
10. What are some of the common causes of an electric fire on a yacht? What can you do to minimise the risk of an electric fire?
11. What is a lee cloth and when would you use it?
12. What precautions would you take when cooking on the water?
13. What does flag Alpha look like? What does it signify?
14. What are the practical ways for you to signal distress and call for help when out sailing? Show me the emergency numbers on your cell 'phone.

SAFETY BRIEFING AND SAFETY EQUIPMENT

1. You are about to take some friends out for a day sail. They are not experienced sailors. Give an appropriate safety briefing. (You are encouraged to use a brief agenda to remind you of the major topics to be covered in a safety briefing, but reading from a long list of crib notes would not be acceptable.)
2. Explain where all the safety equipment is on your boat and demonstrate how to use it.
3. Where are all the through hull fittings that are below the waterline? Where are the bungs for use in an emergency?
4. Where are your life jackets? Demonstrate how to put one on.

LOCAL KNOWLEDGE

You can expect questions on local knowledge which are relevant to the safety of your crew, your yacht or yourself.

ANCHORING

1. Demonstrate anchoring.
2. What can you do to ensure that your anchor has set securely?
3. How can you check to see if your anchor is dragging?
4. Your anchor is stuck. Describe some of the techniques you could employ to break it free.
1. Is your anchor securely stowed? If you have a spare anchor, is that securely stowed as well?

