

## CSLAP Quiz - Answer Key

### Part 1: On Lake Procedures- Regular CSLAP sampling

1. After you have completed training, you can find instructions to conduct CSLAP sampling in ..?
  - a. **Incorrect:** the Sampling Record no longer has sampling tips on the back of the form, but even when it did, instructions for completing the Field Perception Form and the HABs sampling were not included. The correct answer is B- the CSLAP Sampling Protocol found on the FOLA website
  - b. **Correct:** the CSLAP Sampling Protocol should always be consulted to make sure you understand the sampling instructions. You can get a copy of the sampling protocol from the FOLA website [www.NYSFOLA.org](http://www.NYSFOLA.org)
  - c. **Incorrect:** even if CSLAP tip sheets are provided in the package of new materials, these tips are only intended as a reminder about some important reminders. The correct answer is B- the CSLAP Sampling Protocol found on the FOLA website
  - d. **Incorrect:** the CSLAP sampling instructional video is intended as a reminder about a few specific parts of the CSLAP sampling instructions. The correct answer is B- the CSLAP Sampling Protocol found on the FOLA website
  
2. Before you go out to sample, make sure you have:
  - a. **Correct (but not the best answer):** sampling equipment may have dust or other debris accumulated since the last sampling session, so it should be rinsed with clean water (NO DETERGENT!) or lake water if needed. All other answers to this question are also correct.
  - b. **Correct (but not the best answer):** all of these forms are critical to complete a sampling session and must be brought with you into the boat. If you don't have these, go back to the shore and get them! All other answers to this question are also correct.
  - c. **Correct (but not the best answer):** a PFD is required by law and important to keep you safe, and an anchor is needed to keep the boat stable during the sampling. All other answers to this question are also correct.
  - d. **Correct (and best answer):** you must make sure that the sampling equipment is clean, that you have all the paperwork before you go out on the boat, and that your boat has a PFD and anchor. This is the best answer to this question!
  
3. How do you determine your sampling location?
  - a. **Incorrect:** the sampling location should be the deepest part of the lake. Although the center of the lake is often the deepest, this depth needs to be verified. The correct answers is C - go to the expected deepest area (usually near the center), and check sounding depth until the deepest location is found.
  - b. **Incorrect:** the same location- corresponding to the deepest part of the lake- should be used for each regular CSLAP sampling session. The correct answers is C - go to the expected deepest area (usually near the center), and check sounding depth until the deepest location is found.
  - c. **Correct:** the sampling location corresponds to the deepest area of the lake, usually near the center. This location should be confirmed as the deepest by sounding depth.
  - d. **Incorrect:** The deepest part of the lake should be used for the CSLAP sampling, not an area deep enough to get a Secchi disk transparency reading. The correct answer is C.

## CSLAP Quiz - Answer Key

4. Which of the following should be completed first?
  - a. **Correct (and the best answer):** the CSLAP Field Perception Form should be completed before any other measurements are completed to make sure that these measurements (such as the Secchi disk reading) does not influence lake perception. Ideally, you will observe aquatic plant coverage (Question C on the CSLAP Field Perception Form) as you go to the regular CSLAP sampling site.
  - b. **Incorrect:** most information on the CSLAP Sampling Record cannot be completed until other important sampling activities are completed. The correct answer is A- the CSLAP Field Perception form.
  - c. **Incorrect:** the Secchi disk measurements could influence your response to the question on the CSLAP Field Perception Form related to water quality (Question A)- Question A is an attempt to determine if the Secchi disk transparency reading is a good way to evaluate lake perception. The correct answer is A- the CSLAP Field Perception form.
  - d. **Correct (but not the best answer)-**dropping the anchor could stir up the water and adversely affect your ability to complete part of the CSLAP Field Perception Form. However, this might be necessary to keep the boat in place; in this case, no additional CSLAP sampling activities should be completed until the water completely clears. The correct answer is A- the CSLAP Field Perception form.
  
5. What is the “Sounding Depth”?
  - a. **Incorrect:** this is the sampling depth, not the sounding depth. The correct answer is C- the depth of the lake at the CSLAP sampling location
  - b. **Incorrect:** the depth of the center of the lake is not important for CSLAP sampling unless the center is the regular CSLAP sampling location. The correct answer is C- the depth of the lake at the CSLAP sampling location
  - c. **Correct:** the sounding depth is the depth of the lake at the CSLAP sampling location
  - d. **Incorrect:** the depth of the water clarity measurement is either Secchi Disk transparency reading 1 (the depth at which the Disk disappears from sight) or reading 2 (the depth at which the Disk reappears in sight). The correct answer is C- the depth of the lake at the CSLAP sampling location.
  
6. How should the Sounding Depth be measured?
  - a. **Incorrect:** the Kemmerer bottle should not be used to measure lake depth- this could damage the Kemmerer bottle, and the Kemmerer line cannot be measured to the accuracy needed for the sounding depth. The correct answer is B- lowering the Secchi disk until it can no longer be lowered, or answer D- using a depth finder (fish finder).
  - b. **Correct:** lowering the Secchi disk until it can no longer be lowered is the correct way to measure the sounding depth. This should be when the disk rests on the bottom of the lake, but for lakes deeper than the length of the Secchi disk line, this at least confirms that the maximum Secchi disk depth should be recorded.
  - c. **Incorrect:** lowering the Secchi disk until it disappears from sight is the proper method for measured Secchi disk transparency reading #1. The correct answer is B- lowering the Secchi disk until it can no longer be lowered, or answer D- using a depth finder (fish finder).
  - d. **Correct:** using a depth finder (fish finder) is a valid way to measure sounding depth. Make sure that the units (feet or meters) are properly recorded. Answer B- lowering the Secchi disk until it can no longer be lowered- is also correct.

## CSLAP Quiz - Answer Key

7. You use a depth finder (fish finder) to confirm the CSLAP sampling location. The depth finder displays depth in feet. You should...
- Correct (best answer):** the depth finder can be used for Sounding Depth, as long as the units are recorded on the Sampling Record, even if the units are in feet. DEC will convert the units to meters.
  - Incorrect:** if the depth finder is used for Sounding Depth, units should not be converted- DEC will do this conversion. The correct answer is A: Use the depth finder for the Sounding Depth, record in feet, and display units (write “feet” next to the measurement)
  - Incorrect:** if both feet and meters are listed, and the conversion is not correct, it will not be clear which measurement is accurate. The correct answer is A: Use the depth finder for the Sounding Depth, record in feet, and display units (write “feet” next to the measurement).
  - Correct (but not the best answer):** although the Secchi disk is provided for both water clarity and Sounding Depth measurements, some volunteers prefer to use a Depth Finder for Sounding Depth measurements. If you use a depth finder, the correct answer is A: Use the depth finder for the Sounding Depth, record in feet, and display units (write “feet” next to the measurement).
8. Where should you evaluate the water quality and aquatic plant perception, Questions A and C respectively, for the CSLAP Field Perception Form?
- Incorrect:** the center of the lake may not be the regular CSLAP sampling site. The area outside your dock may be a managed location, which might not be representative of typical (unmanaged) aquatic plant communities in the lake. The correct answer is D- the CSLAP sampling site and a consistent unmanaged shoreline site, respectively.
  - Incorrect:** the CSLAP sampling site should be used for the water quality evaluation, but not for the aquatic plant evaluation; the latter needs to be done near the shoreline. The correct answer is D- the CSLAP sampling site and a consistent unmanaged shoreline site, respectively.
  - Incorrect:** outside your dock may not be an acceptable location to evaluate aquatic plant communities, since this might be a managed location not representative of (unmanaged) aquatic plants in the lake. This location, and any shoreline location, is definitely not acceptable for evaluating water quality conditions. The correct answer is D- the CSLAP sampling site and a consistent unmanaged shoreline site, respectively.
  - Correct:** the CSLAP sampling site is the proper place to evaluate water quality conditions and a consistent unmanaged shoreline site is the best place to evaluate aquatic plant coverage if this site is representative of normal plant coverage in the lake.
9. You can't decide between choice #2 and #3 on a CSLAP Field Perception form question. You should ...?
- Incorrect:** the more favorable option may not be the most representative of conditions in the lake at the time of sampling. The correct answer is D: Confer with any other samplers on the boat, is possible, and decide on a single choice.
  - Incorrect:** the least favorable option may not be the most representative of conditions in the lake at the time of sampling. The correct answer is D: Confer with any other samplers on the boat, is possible, and decide on a single choice
  - Incorrect:** failing to decide on a single choice will force DEC to choose among the options. This will likely lead to an incorrect assessment of the most representative choice. The correct answer is D: Confer with any other samplers on the boat, if possible, and decide on a single choice
  - Correct:** a single choice is needed to provide consistency with results from previous samples or other lakes.

## CSLAP Quiz - Answer Key

10. To record Secchi disk transparency you:

- a. **Correct (but not the best answer):** lowering the Secchi Disk all the way to the bottom after the first measurement is not necessary. The correct answer is B: , and record the depth at which it disappears; Continue lowering to the bottom of the lake; raise it up and record where it reappear Lower the Secchi Disk, and record the depth at which it disappears; Let out a little line; raise it up and record where it reappears
- b. **Correct (and the best answer):** this is the proper method for collecting Secchi disk reading 1 (disappearing from sight) and Secchi disk reading 2 (reappearing in sight).
- c. **Incorrect:** the black part of the disk is usually not the last part of the disk to disappear from sight. The correct answer is B: , and record the depth at which it disappears; Continue lowering to the bottom of the lake; raise it up and record where it reappear Lower the Secchi Disk, and record the depth at which it disappears; Let out a little line; raise it up and record where it reappears.
- d. **Incorrect:** this answer describes the process for collecting the Sounding Depth measurement in the first part, and the Secchi disk reading 2 in the second part. The correct answer is b.

11. Record your Sounding Depth and Secchi disk measurements to the nearest..?

- a. **Correct:** 0.1 meter is the proper level of accuracy, and should be easily achieved in the field.
- b. **Incorrect:** 0.25 meter is not accurate enough for most lakes, and would require “rounding” for the most likely measurements. The correct answer is A: 0.1 meter.
- c. **Incorrect:** 1 meter is not accurate enough for any CSLAP lake, and would require “rounding” for the most likely measurements. The correct answer is A: 0.1 meter.
- d. **Incorrect:** although it is possible to measure as accurately as 0.01 meter, this level of accuracy should not be attempted, particularly with any boat movement, and is not needed for annual or lake to lake comparisons. The correct answer is A: 0.1 meter.

12. Secchi disk transparency is:

- a. **Incorrect:** Secchi disk transparency is never greater than sounding depth. The correct answer is B- always less than or equal to sounding depth
- b. **Correct:** the Secchi disk transparency is always less than or equal to sounding depth
- c. **Incorrect:** the Secchi disk transparency is the average of two readings that should be LESS than 1 meter apart, not GREATER than 1 meter apart. However, this option was not offered. The correct answer is B- the Secchi disk transparency is always less than or equal to sounding depth
- d. **Incorrect:** although sunglasses will help to avoid glare, some polarized sunglasses will improve the transparency above that available to someone without these glasses. Since these glasses are not standardized at all lakes, this will result in a discrepancy in comparing one lake to another, or previous results on the same lake. The correct answer is B- the Secchi disk transparency is always less than or equal to sounding depth

## CSLAP Quiz - Answer Key

13. Your Secchi disk reading 1 (“disappearing”) is more than 1 meter different from Secchi disk reading 2 (“reappearing”). What should you do?
- Correct:** these measurements should not be that far apart; collect them again
  - Incorrect:** Secchi disk reading 1 and reading 2 should not be 1 meter (or more) apart. The correct answer is A: these measurements should not be that far apart; collect them again.
  - Incorrect:** Secchi disk reading 2 should NOT be the same as the sounding depth unless the Secchi disk is visible while it sits on the lake bottom. The correct answer is A: these measurements should not be that far apart; collect them again.
  - Incorrect:** Secchi disk reading 1 and reading 2 should not be 1 meter (or more) apart. The correct answer is A: these measurements should not be that far apart; collect them again
14. When you lower the Kemmerer bottle to the proper sampling depth, the line is pointing at a steep angle. You should...
- Incorrect:** pushing or throwing the messenger can damage the Kemmerer bottle. This method will not solve the problem of a Kemmerer bottle that will be too close to the surface. The correct answer is C: Bring the Kemmerer bottle back into the boat and try again.
  - Incorrect:** raising the Kemmerer bottle closer to the surface to reduce the angle will result in a sample collected at a depth less than 1.5 meters. This is too shallow. The correct answer is C: Bring the Kemmerer bottle back into the boat and try again.
  - Correct:** When you bring the Kemmerer bottle back into the boat and try again, you should also check the anchor to make sure it is holding the boat in place.
  - Incorrect:** running the motor while collecting the sample can result in a contaminated sample and can run the risk of cutting the line (with the boat propeller) or creating an unsafe situation. The correct answer is C: Bring the Kemmerer bottle back into the boat and try again.
15. At what depth should the regular surface water sample- not the bloom sample- be collected?
- Incorrect (except for a small group of lakes):** Unless your lake is less than 3 meters deep (maximum depth), a 1 meter sample depth is too shallow. The correct answer is B- 1.5 meters.
  - Correct:** All surface samples should be collected at a depth of 1.5 meters (except for very shallow lakes, as discussed in answer A). This is equal to five feet and should correspond to the red line on the measured Kemmerer bottle line.
  - Incorrect:** The proper sampling depth of 1.5 meters is equivalent to 5 feet, not 5 meters. The correct answer is B- 1.5 meters.
  - Correct:** The red mark on the Kemmerer line corresponds to a depth of 1.5 meters, or 5 feet. This is the only red mark on the Kemmerer bottle line. If this red mark is not visible, the surface sample should be collected at the midpoint between the first (1 meter) and second (2 meter) marked line.

## CSLAP Quiz - Answer Key

16. At what depth should the bottom water sample be collected?
- Incorrect:** for nearly all CSLAP lakes, the Kemmerer bottle can be lowered to the lake bottom. Collecting a sample at this depth would collect a large amount of bottom muds, since the Kemmerer bottle would be sitting within the sediment layer. The correct answer is D- 1.5 meters off the lake bottom.
  - Incorrect:** the sounding depth is the same as the bottom depth. Collecting a sample at this depth would collect a large amount of bottom muds, since the Kemmerer bottle would be sitting within the sediment layer. The correct answer is D- 1.5 meters off the lake bottom.
  - Incorrect:** collecting a sample 1 meter off the lake bottom increases the likelihood of accidentally grabbing lake sediment within this sample; this would compromise the sampling results. The correct answer is D- 1.5 meters off the lake bottom.
  - Correct:** The surface samples are collected 1.5 meters from the lake surface, and the bottom samples are collected 1.5 meters off the lake bottom
17. How should you hold the Kemmerer bottle as you pour water into the collapsible container?
- Correct (but not the best answer):** holding the line above the gray shaft will prevent the sample from spilling out of the Kemmerer bottle, but may make extracting the sample through the valve more difficult. The correct answer is B- hold the gray shaft
  - Correct:** holding the gray shaft will prevent the sample from spilling out of the Kemmerer bottle, and the valve will be more easily opened when pouring the sample into the collapsible container.
  - Incorrect:** holding the side of the Kemmerer bottle will likely result in the weight of the sample forcing open the bottom stopper, spilling the sample in your lap. The correct answer is B- hold the gray shaft
  - Incorrect:** resting the Kemmerer bottle between your knees will likely result will likely result in the weight of the sample forcing open the bottom stopper, spilling the sample in your lap. The correct answer is B- hold the gray shaft
18. You heard on the radio that the air temperature at the lake is 70 degrees. Can you use this for your air temperature results?
- Incorrect:** you should use a CSLAP-issue thermometer. The correct answer is D- use the thermometer provided by NYSFOLA and report the temperature in Celsius. If you don't have a thermometer issued by NYSFOLA, ask for a thermometer.
  - Incorrect:** you should use a CSLAP-issue thermometer. The correct answer is D- use the thermometer provided by NYSFOLA and report the temperature in Celsius. If you don't have a thermometer issued by NYSFOLA, ask for a thermometer.
  - Incorrect:** reporting air temperatures in one set of units and water temperatures in another set of units will be confusing. The correct answer is D- use the thermometer provided by NYSFOLA and report the temperature in Celsius. If you don't have a thermometer issued by NYSFOLA, ask for a thermometer.
  - Correct:** you should only use the thermometer provided by NYSFOLA. If you don't have a thermometer issued by NYSFOLA, ask for a thermometer.

## CSLAP Quiz - Answer Key

19. The water temperature reading should be collected by....?
- Incorrect:** dangling the thermometer off the side of the boat will collect a surface measurement, not a measurement at the same depth as the other lab tests. This might also result in a thermometer dropped over the side of the boat. The correct answer is B: immersing the thermometer in the collapsible container as soon as the sample is collected
  - Correct:** immersing the thermometer in the collapsible container as soon as the sample is collected will minimize temperature changes and link the temperature readings to the water chemistry results from the same depth.
  - Incorrect:** dangling the thermometer off the side of the boat will collect a surface measurement, not a measurement at the same depth as the other lab tests. This might also result in a thermometer dropped over the side of the boat. The correct answer is B: immersing the thermometer in the collapsible container as soon as the sample is collected
  - Incorrect:** water temperatures collected from your dock will collect a surface measurement, not a measurement at the same depth as the other lab tests. This might also result in a thermometer dropped over the side of the boat. The correct answer is B: immersing the thermometer in the collapsible container as soon as the sample is collected
20. During the last week, there were two days of rain, four days of clear weather, and one day of overcast weather. Which "Weather: Past Week" boxes should be checked on the CSLAP Sampling Record?
- Incorrect:** Checking "Rain" only will not provide information about the clear weather; the overcast weather did not occur frequently enough to be cited. The correct answer is C: "Rain" and "Clear"
  - Incorrect:** Checking "Clear" only will not provide information about the rainy weather; the overcast weather did not occur frequently enough to be cited. The correct answer is C: "Rain" and "Clear"
  - Correct:** "Rain" and "Clear" were the only conditions occurring during more than one day in the week; this is the procedure outlined in the Sampling Protocol.
  - Incorrect:** "Overcast" should not be checked, since this only occurred during one day in the week. The correct answer is C: "Rain" and "Clear"
21. Which of the following should NOT be recorded in the Comments section of the Sampling Record
- Incorrect:** Actual rainfall amounts in last week, if known, SHOULD be recorded on the Comments section. The correct answer is C- Request to replace equipment or replenish supplies, which should be on a separate sheet on top of the sampling cooler.
  - Incorrect:** Reports about recent lake management actions- plant control, drawdown, etc.- SHOULD be recorded on the Comments section. The correct answer is C- Request to replace equipment or replenish supplies, which should be on a separate sheet on top of the sampling cooler.
  - Correct:** Any requests to replace equipment or replenish supplies SHOULD NOT be included on the Sampling Record OR on the Chain of Custody form. This information should be included on a separate note placed on top of the sampling cooler.
  - Incorrect:** Chemical spills into the lake SHOULD be recorded on the Comments section. The correct answer is C- Request to replace equipment or replenish supplies, which should be on a separate sheet on top of the sampling cooler.