

AQUATIC ECOLOGY STATION

Instructions: You have one (1) hour to complete the following questions. Partial credit may be awarded on some questions, so BE THOROUGH! If you need additional space, write on the back of the sheet and number your answers.

1. Define Watershed. [3pts]

pts

2. Draw a picture of the water cycle using this watershed and include at least five (5) of the nine (9) major water storage locations found in the water cycle. [15 pts]

3. List five (5) functions and/or values of a Wetland. [3 pts each for total of 15]

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____

Page 1 Subtotal _____

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Page 1 _____ + Page 2 _____ + Page 3 _____ + Page 4 _____ = Point Total for Aquatic Ecology _____

Page 5 _____ = Point Total for Special Topic _____

pts

4. List the eight (8) types of Wetlands found in Oklahoma. [1 pt each for total of 8]

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____
- f. _____
- g. _____
- h. _____

5. Identify the labeled fish. [2 pts each for total of 8]

- a. Common name: _____
- b. Common name: _____
- c. Common name: _____
- d. Common name: _____

6. Identify the labeled invertebrates. [2 pts each for total of 8]

- a. Common name: _____
- b. Common name: _____
- c. Common name: _____
- d. Common name: _____

7. List a 4-stage aquatic food chain using the animals identified in Questions 5 & 6.
[8 pts, no partial credit]

_____ ⇒ _____ ⇒ _____ ⇒ _____

Page 2 Subtotal

8. List a 4-stage aquatic food chain of organisms found in this area NOT using the animal identified in Questions 5 & 6. [8 pts, no partial credit]

pts

_____ ⇒ _____ ⇒ _____ ⇒ _____

9(a). Identify the labeled piece of equipment. [3 pts]

9(b). Label the parts indicated on the equipment in Question 9(a).
[1 pt each for total of 3]

a. _____

b. _____

c. _____

10(a). Identify the labeled piece of equipment. [3 pts]

10(b). Label the parts indicated on the equipment in Question 10(a).
[1 pt each for total of 2]

a. _____

b. _____

11. Choosing from the two (2) pieces of equipment identified in Questions 9 & 10, which one would you use to determine the success of last year's *Lepomis spp.* hatch? [3 pts]

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12. Using the equipment provided, determine the following parameters for this part of the lake. Include appropriate units with your answers. [2 pts each for total of 8]

pts

a. Water Temperature: _____

b. Air Temperature: _____

c. Dissolved Oxygen: _____

d. pH: _____

13. Based on the information from Questions 5, 6, 12, & 15, rate the relative health of this aquatic ecosystem. Briefly explain what led you to this conclusion. [5 pts]

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pts

14. Due to the multijurisdictional regulators on Lake Texoma, what is the #1 obstacle that must be overcome before any new management regulations can be implemented on this lake? [5 pts]

15. List five (5) factors affecting this site's aquatic ecosystem in a negative manner. [2 pts each for total of 10]

a. _____

b. _____

c. _____

d. _____

e. _____

16. List one (1) best management practice that can be done at this site to improve the water quality for each of the five (5) major water storage locations you listed in Question 2. [2 pts each for total of 10]

a. _____

b. _____

c. _____

d. _____

e. _____

Page 5 ST Subtotal