

ASSESSMENT	Chapter 1 Test Answer Key	BLM 1.3.1A
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Answers to **Multiple Choice** Questions

1. c
2. a
3. b
4. d
5. c
6. a
7. c
8. d
9. d
10. a
11. b
12. d
13. d
14. a
15. c
16. c
17. a
18. b
19. d
20. d

Answers to **Numerical Response** Questions

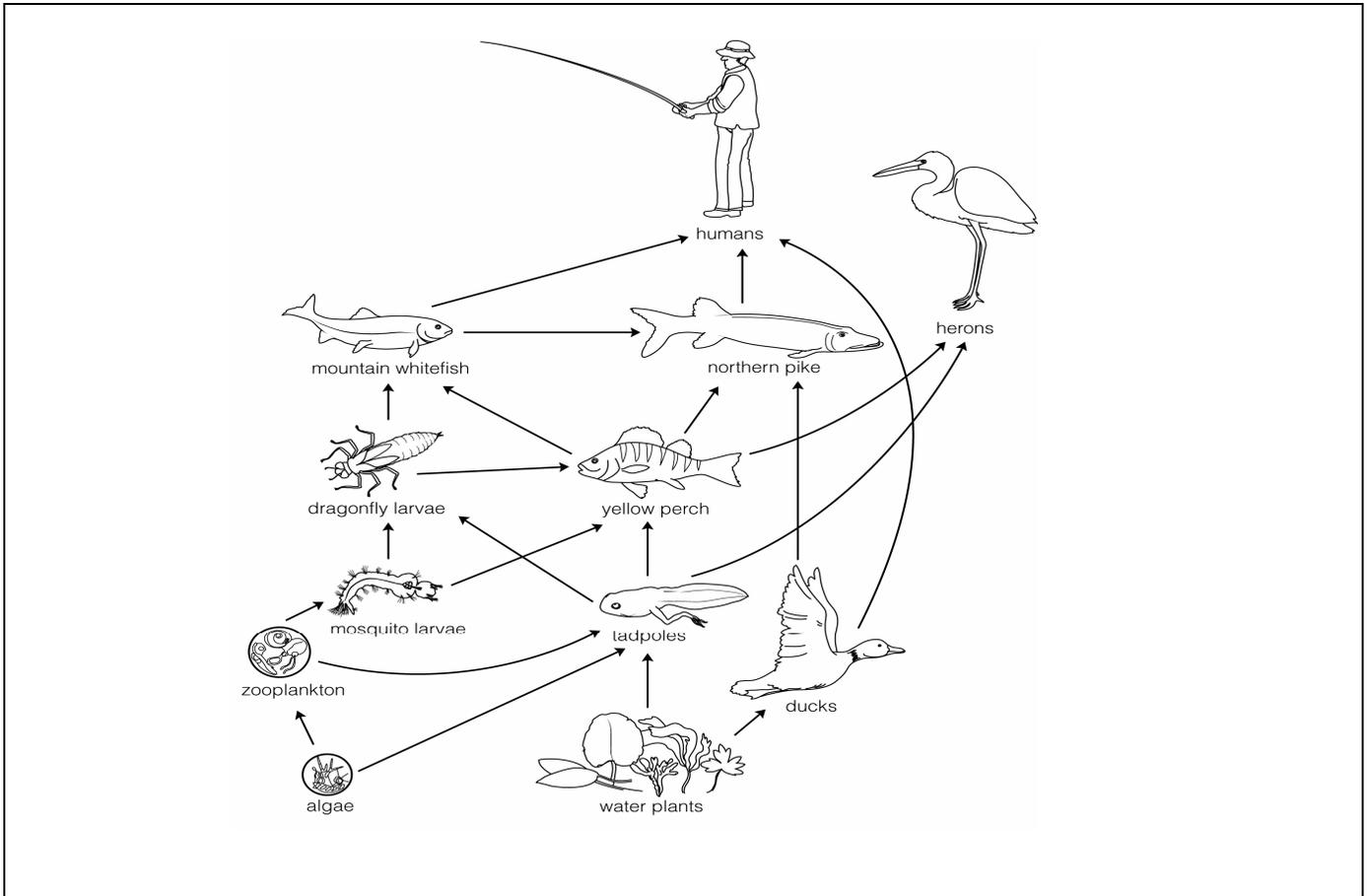
1. 1, 3, 4, 2
2. 2, 3, 4, 1
3. 2, 4, 3, 5, 1
4. 0.10 percent
5. 75.0 J

Sample Answers to **Written Response** Questions

1. a) Frogs are indicator species because they are so sensitive to their surroundings. The presence or absence of an indicator species can be a sign of the overall health of an ecosystem. (2 marks)

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b) The following is an example food web. Note: tadpoles or adult frogs could be used. Students should also include decomposers in their food web. (5 marks)



c) One possible food chain is shown below. Students' answers should clearly identify four trophic levels. (4 marks)

algae →	tadpoles (frogs) →	dragonfly larvae →	mountain whitefish
first trophic level	second trophic level	third trophic level	fourth trophic level

d) Students could predict that as the population of frogs decreases, the population of insects could increase and the population of animal(s) that depend on the frogs for food would decrease. Ecologists have learned that the stability of feeding relationships decreases with a decrease in the number of species (biodiversity). Conversely, the stability of feeding relationships increases with an increase in the number of species. (4 marks)

e) Students' answers could include any two of the following: eutrophication of the wetland; the introduction of pesticides or herbicides; accumulation of heavy metals; habitat destruction; introduction of invasive species. Possible effects of any of these factors on frog populations should refer to food chains and food webs and/or to ecological pyramids. (4 marks)