DATE: NAME: CLASS:

TOPICS 1–2 | BLM 1-6

ASSESSMENT

Topics 1–2 Test

Goal • Demonstrate your understanding of the concepts presented in Topics 1 and 2.

What to Do

Read each question carefully before answering in the space provided. If you work at a steady pace, you should have enough time to finish.

Definitions

Define each term in full sentences.

1. biological diversity
the number and variety of organisms in an area.

2. behavioural adaptation
an inherited characteristic behaviour that helps an organism survive in its environment

3. competition
the struggle among individual organisms for access to a limited resource, such as food or territory

4. narrow niche
a highly specialized role undertaken by an organism

5. symbiotic relationship
an interaction between organisms of different species living in close proximity to each other in a relationship that lasts over time.

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Topics 1–2 Test (continued)

True or False

In the space provided, indicate whether each statement is true (T) or false (F). If the statement is false, rewrite it to make it true.

F 6. Scientists have identified all plant species.

Scientists have not identified all plant species.

F 7. All individuals of a single species are identical.

all individuals of a single species have variations.

T 8. Much of Earth's biological diversity is due to speciation.

F 9. A specialist can easily survive extreme changes in its environment.

a specialist cannot survive extreme changes in its environment

T 10. The relationship between mycorrhizal fungi and tree roots is symbiotic.

T 11. Life has been found at temperatures as high as 110°C.

Multiple Choice

12. Biological diversity is important for the following reason(s):
    (a) many medicines come from biological sources
    (b) the survival of one species is sometimes closely linked to the survival of another
    (c) biological diversity may promote the health and survival of natural communities
    (d) all of the above

13. In general, organisms of a single species:
    (a) share similar characteristics
    (b) are able to interbreed and produce fertile offspring
    (c) will show some amount of variation
    (d) all of the above

14. Which kind of graph should be used to display the frequency of students' heights?
    (a) line graph
    (b) bar graph
    (c) histogram
    (d) none of the above

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Topics 1–2 Test (continued)

15. Which organism would be considered a specialist?
    (a) wolf
    (b) lion-tailed macaque
    (c) Arctic hare
    (d) polar bear

16. Snow alga has variations that allow it to:
    (a) survive in cold temperatures
    (b) form a symbiotic relationship with plants
    (c) survive intense sunlight
    (d) both (a) and (c) above
    (e) both (a) and (b) above

17. A poplar tree's niche includes its habitat and activities such as:
    (a) removing carbon dioxide from the air and releasing oxygen to the air
    (b) removing water and nutrients from the soil
    (c) providing food and shelter for a wide variety of organisms
    (d) all of the above

Short Answer

18. Name one organism and give an example of one of its structural adaptations.

Fish – gills etc. 1/2

19. Give an example of two or more closely related species.

Cougar, lynx, bobcat 1/2
Sciatè, finch

20. Give one reason why the different warbler species that live in spruce trees do not occupy the same niche.

The feeding patterns of the warblers are different. The warblers feed in different parts of the tree; eat slightly different foods.

21. Which forest would be more likely to survive disease: a forest made up of one type of tree, or a forest made up of many types of trees? Explain your answer.

A forest made up of many types of trees b/c the disease will probably only affect one type of tree. In the single tree forest only the specific disease-resistant trees would survive most would die. 1/2

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