

Brett Robbins Academic Consulting

Biology 20 Practice Test

Unit 1: Energy and Matter Exchange in the Biosphere

5 Questions

Original practice questions written to the Alberta curriculum, in the style of past diploma examinations. Work through each question, then check your answers with the key at the end.

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, contact Brett for clarification.

Question 1

The biosphere is best described as

- A) the thin layer of Earth in which living organisms exist
- B) all of the water on the surface of Earth
- C) the layer of gases that surrounds Earth
- D) all of the rock and soil that forms the crust of Earth

Question 2

Which process removes carbon dioxide from the atmosphere and stores the carbon in glucose?

- | | |
|-------------------------|-------------------|
| A) Cellular respiration | B) Photosynthesis |
| C) Combustion | D) Decomposition |

Question 3

A deer feeds on grasses and shrubs. In this relationship, the deer is a

- | | |
|---------------------|-----------------------|
| A) producer | B) secondary consumer |
| C) primary consumer | D) decomposer |

Question 4

Decomposers such as bacteria and fungi are essential to an ecosystem because they

- A) capture energy from sunlight for producers
- B) convert nitrogen gas into usable nitrates
- C) transfer energy from consumers back to producers
- D) break down dead matter and release nutrients into the soil

Question 5

The producers in a grassland store 500000 kJ of energy.

Using the 10% rule, the energy transferred to the primary consumers, in kJ, is _____

Answer Key

- | | | |
|------|------|----------|
| 1. A | 3. C | 5. 50000 |
| 2. B | 4. D | |

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