

Brett Robbins Academic Consulting

Biology 20 Practice Test

Unit 3: Photosynthesis and Cellular Respiration

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 overall process of photosynthesis is best represented by the equation

- A) $C_6H_{12}O_6 + 6O_2 \rightarrow 6CO_2 + 6H_2O + \text{energy}$
- B) $6CO_2 + 6H_2O + \text{light energy} \rightarrow C_6H_{12}O_6 + 6O_2$
- C) $6CO_2 + 6O_2 + \text{light energy} \rightarrow C_6H_{12}O_6 + 6H_2O$
- D) $C_6H_{12}O_6 + 6H_2O \rightarrow 6CO_2 + 6O_2$

Question 2

In a plant cell, photosynthesis takes place in the

- A) chloroplast
- B) mitochondrion
- C) nucleus
- D) vacuole

Question 3

The main purpose of cellular respiration is to

- A) produce glucose for storage
- B) release oxygen into the air
- C) transfer energy from glucose to ATP
- D) remove carbon dioxide from cells

Question 4

The oxygen released during photosynthesis comes directly from

- A) carbon dioxide
- B) chlorophyll
- C) glucose
- D) water

Question 5

During glycolysis, each glucose molecule that is broken down produces a net gain of 2 ATP.

The net gain of ATP when 4 glucose molecules are broken down by glycolysis is ____

Answer Key

- | | | |
|------|------|------|
| 1. B | 3. C | 5. 8 |
| 2. A | 4. D | |

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