

2.7 Cellular Respiration

Question Paper

Course	DP IB Biology
Section	2. Molecular Biology
Topic	2.7 Cellular Respiration
Difficulty	Easy

Time allowed: 10
Score: /5
Percentage: /100

Question 1

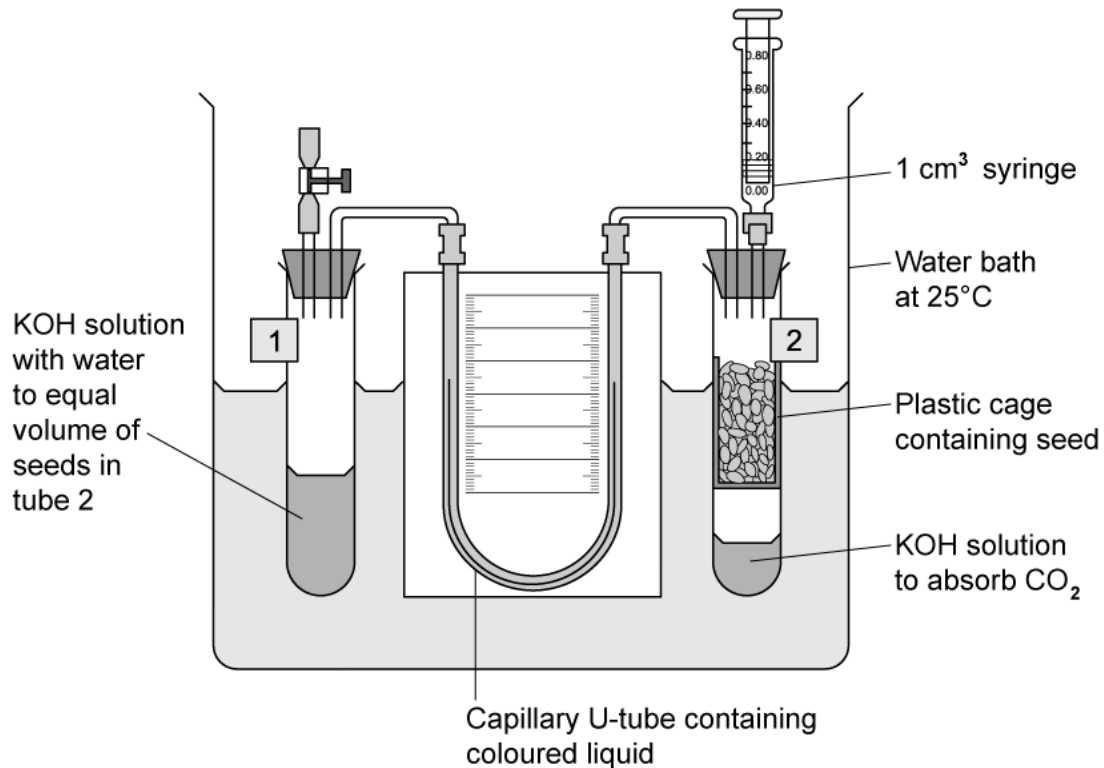
Which of the following statements about cellular respiration is correct?

- A. Cellular respiration involves the conversion of ADP and phosphate to form ATP.
- B. Cellular respiration involves the conversion of ATP to ADP and phosphate.
- C. Cellular respiration always produces carbon dioxide.
- D. Cellular respiration is the controlled release of energy from inorganic compounds.

[1 mark]

Question 2

The apparatus shown can be used to measure the rate of oxygen consumption of germinating seeds during aerobic respiration.



What would happen to the coloured liquid in the capillary tube when the seeds respire?

- A. The fluid moves towards the seeds.
- B. The fluid expands due to an increase in temperature.
- C. The volume of the fluid decreases as oxygen is being used up.
- D. The fluid moves away from the seeds.

[1 mark]

Question 3

Which of the following statements correctly describes anaerobic respiration in yeast?

- I. The breaking down of glucose to yield products of ethanol and carbon dioxide.
 - II. The ethanol produced is toxic to the cell.
 - III. Lactic acid is produced as a metabolic waste product.
 - IV. Yields more ATP than aerobic respiration.
- A. I. and IV.
B. I. II. and IV.
C. I. and II.
D. III. and IV.

[1 mark]

Question 4

Which of the following is a major benefit of anaerobic respiration during exercise in humans?

- A. Glucose molecules are fully oxidised during anaerobic respiration.
- B. Anaerobic respiration can supply ATP very rapidly for a short period of time.
- C. It produces useful byproducts.
- D. Anaerobic respiration can supply ATP indefinitely.

[1 mark]

Question 5

What is the principle reason why mitochondria are so prevalent in mammalian skeletal muscle?

- A. Mitochondria can produce energy anaerobically.
- B. Mitochondria store glycogen.
- C. Mitochondria provide energy for muscle contractions.
- D. They help excrete carbon dioxide from the cell.

[1 mark]



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