



QUIZ

Time

Bio I7

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Bio 17

What percentage of ATP is generated by oxidative phosphorylation during cellular respiration?

- A. 50%
- B. 70%
- C. 90%
- D. 30%

What is the approximate efficiency of energy transfer from glucose to ATP during cellular respiration?

- A. 20%
- B. 40%
- C. 60%
- D. 80%

What is the first step in glycolysis?

- A. Conversion of glucose to pyruvate
- B. Addition of phosphate to glucose by hexokinase
- C. Formation of fructose-6-phosphate
- D. Production of ATP

What is the net ATP production from glycolysis alone?

- A. 4 ATP
- B. 2 ATP
- C. 6 ATP
- D. 8 ATP

What is the function of NAD⁺ in cellular respiration?

- A. It acts as an electron acceptor
- B. It produces ATP directly
- C. It breaks down glucose
- D. It forms pyruvate

What is chemiosmosis?

- A. The breakdown of glucose
- B. The production of ATP without oxygen
- C. The use of energy in a H⁺ gradient to drive cellular work
- D. The conversion of pyruvate to acetyl CoA

What are the three main stages of cellular respiration?

- A. Glycolysis, citric acid cycle, and oxidative phosphorylation
- B. Glycolysis, fermentation, and electron transport chain
- C. Substrate-level phosphorylation, chemiosmosis, and fermentation
- D. Redox reactions, ATP synthesis, and electron transport

Where does the citric acid cycle take place?

- A. Cytoplasm
- B. Mitochondrial matrix
- C. Cell membrane
- D. Mitochondrial intermembrane space

What is the final electron acceptor in the electron transport chain during aerobic respiration?

- A. NAD⁺
- B. FADH₂
- C. Oxygen
- D. Pyruvate

Where does glycolysis occur in the cell?

- A. Mitochondrial matrix
- B. Cytoplasm
- C. Cell membrane
- D. Mitochondrial intermembrane space

Answers

1-c

6-c

2-b

7-a

3-b

8-b

4-b

9-c

5-a

10-b