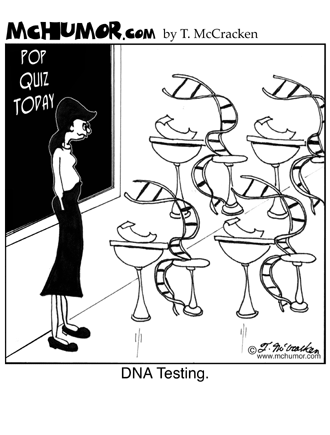
CELLULAR RESPIRATION

UNIT EXAM

MISS IMIG – BIOLOGY I



**MULTIPLE CHOICE**

1. Cellular respiration is the process in which
   1. Energy is released by breaking down glucose and other food molecules in the presence of carbon dioxide
   2. Energy is released by breaking down glucose and other food molecules in the presence of oxygen
   3. Water, light, and carbon dioxide are used to generate glucose and oxygen
   4. An organism breathes in an out
2. The three main organic compounds our bodies obtain from the food we eat are:
   1. Vitamins, Minerals, and Nucleic Acids
   2. Proteins, Lipids, and minerals
   3. Proteins, Lipids, and Carbohydrates
   4. Lipids, Carbohydrates, and Minerals
3. Cellular respiration produces:
   1. Carbon Dioxide, Water, and ATP
   2. Carbon, Hydrogen, and Oxygen
   3. Oxygen and glucose
   4. Water and Carbon
4. The following phases of cellular respiration take place INSIDE the mitochondria:
   1. Glycolysis and fermentation
   2. Fermentation and Kreb’s Cycle
   3. Glycolysis and Electron Transport Chain
   4. Kreb’s Cycle and Electron Transport Chain
5. Fermentation is different from cellular respiration in that
   1. Fermentation does not require oxygen
   2. Cellular respiration generates less ATP
   3. Cellular respiration only occurs in animals and fermentation occurs in plants
   4. Fermentation utilizes pyruvic acid while the process of cellular respiration does not
6. Which of the following organisms undergo cellular respiration?

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A. I and II

B. II and III

C. II only

D. I, II, and III

**TRUE/FALSE**

1. The electron transport chain uses high-energy electrons to make ATP
2. Animals have mitochondria while plants only have chloroplasts

**SHORT ANSWER**

1. Use the table to chart the differences between alcoholic and lactic acid fermentation

|  |  |  |
| --- | --- | --- |
|  | Alcoholic Fermentation | Lactic Acid Fermentation |
| Reactants |  |  |
| Products |  |  |
| An organism in which this process takes place |  |  |

1. Draw a diagram of the Kreb’s Cycle, labeling the reactants and products.
2. Give 2 differences and 2 similarities between photosynthesis and cellular respiration. You may use the Venn Diagram below if you wish.

**ESSAY**

1. Identify the three main ATP stores in your muscles and explain “oxygen debt” in the context of a long-distance race such as a marathon.