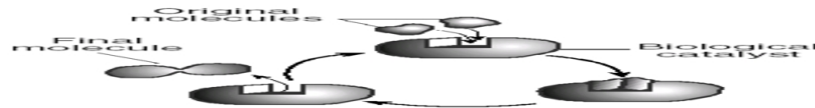


- 1.. An increase in heart rate will most likely result in (1) a decrease in metabolic rate (2) an increase in pulse rate (3) an increase in cell division (4) a decrease in body temperature
2. The diagram below represents a series of reactions that can occur in an organism.



This diagram best illustrates the relationship between (1) enzymes and synthesis (2) amino acids and glucose (3) antigens and immunity (4) ribosomes and sugars

3. Which two organ systems provide materials required for the human body to produce ATP? (1) reproductive and excretory (2) digestive and respiratory (3) respiratory and immune (4) digestive and reproductive
4. Which organelle is directly responsible for cellular protein synthesis? (1) ribosome (2) mitochondria (3) vacuole (4) chloroplast
5. While viewing a slide of rapidly moving sperm cells, a student concludes that these cells require a large amount of energy to maintain their activity. The organelles that most directly provide this energy are known as (1) vacuoles (2) chloroplasts (3) ribosomes (4) mitochondria
6. A chief function of the pancreas is the (1.) maintenance of blood sugar homeostasis (2.) coordination of the excretory system (3.) regulation of cellular communication (4.) control of reproductive hormone release
7. Crohn's disease is a painful condition in the intestines. Some scientists believe Crohn's disease may be due to some blood cells recognizing substances in the intestines as being foreign. These scientists believe Crohn's disease is associated with an abnormal (1.) respiratory rate producing increased inflammation (2.) immune response producing increased inflammation (3.) regulation of blood sugar in the intestines (4.) release of wastes from the urinary bladder
8. The purpose of digestion is best described as the (1.) the transport of small molecules to the cells of an organism (2.) the removal of waste products from an organism (3.) the conversion of food molecules to usable energy by cells (4.) the breakdown of food molecules allowing them to be small enough to enter the cells