**Ch 7**

**1. When cells break down food molecules, energy**

**a. is released all at once.**

**b. is released entirely as body heat into the environment.**

**c. is temporarily stored in ATP molecules.**

**d. causes excitation of electrons in chlorophyll molecules.**

**2. A substance produced during photosynthesis that is used for completion of cellular respiration is**

**a. water. c. NADPH.**

**b. ATP. d. oxygen.**

**3. The process of cellular respiration**

**a. is performed only by organisms that are incapable of photosynthesis.**

**b. breaks down food molecules to release stored energy.**

**c. occurs before plants are able to carry out photosynthesis.**

**d. occurs only in animals.**

**4. When glycolysis occurs,**

**a. a molecule of glucose is split.**

**b. two molecules of pyruvic acid are made.**

**c. some ATP is produced.**

**d. All of the above**

**5. The name of the process that takes place when organic compounds are broken down in the absence of oxygen is**

**a. respiration. c. fermentation.**

**b. oxidation. d. All of the above**

**6. When muscles are exercised extensively in the absence of sufficient oxygen,**

**a. a large amount of ATP is formed.**

**b. NADH molecules split.**

**c. lactic acid is produced.**

**d. cellular respiration ceases.**

**7. Cellular respiration takes place in two stages:**

**a. glycolysis and fermentation.**

**b. Stage 1 and Stage 2 of photosynthesis.**

**c. glycolysis, then aerobic respiration.**

**d. aerobic respiration, then glycolysis.**

**8. In cellular respiration, a two-carbon molecule combines with a four-carbon molecule to form citric acid as part of**

**a. glycolysis.**

**b. carbon fixation.**

**c. the Krebs cycle.**

**d. the electron transport chain.**

**9. Acetyl coenzyme A**

**a. is formed from the breakdown of pyruvic acid.**

**b. enters the Krebs cycle.**

**c. can be used in synthesis of needed molecules.**

**d. All of the above**

**10. Glycolysis and aerobic respiration are different in that**

**a. glycolysis occurs on the cell membrane, while aerobic respiration occurs in mitochondria.**

**b. glycolysis occurs only in photosynthesis, while aerobic respiration is part of cellular respiration.**

**c. glycolysis occurs in the absence of oxygen, while aerobic respiration requires oxygen.**

**d. There is no difference; these terms are different names for the same process.**