

Name:

Living Environment

Do Now # 1.10

1. Which chemical formula represents a carbohydrate?

- (1) CH_4
- (2) $\text{C}_3\text{H}_7\text{O}_2\text{N}$
- (3) $\text{C}_{12}\text{H}_{22}\text{O}_{11}$
- (4) CO_2

2. Which compound is a polysaccharide?

- (1) glucose
- (2) maltase
- (3) ribose
- (4) starch

3. Which group of organic molecules includes glycogen and glucose?

- (1) carbohydrates
- (2) lipids
- (3) nucleic acids
- (4) proteins

4. Two examples of carbohydrates are

- (1) fatty acids and glycerol
- (2) fats and waxes
- (3) sugars and starches
- (4) amino acids and alcohol

5. Which molecules are not carbohydrates?

- (1) simple sugars
- (2) disaccharides
- (3) polysaccharides
- (4) hydrolytic enzymes

6. Plants store carbohydrates in the form of

- (1) amino acids
- (2) fatty acids
- (3) starch
- (4) nucleic acids

7. In humans, excess glucose is stored as the polysaccharide known as

- (1) glycogen
- (2) glycerol
- (3) maltose
- (4) cellulose

8. Which term best describes a solution with a pH of 5?

- (1) acidic
- (2) neutral
- (3) basic
- (4) colorless

9. Groups A and B in the table below contain molecular formulas of compounds.

Group A	Group B
$\text{C}_6\text{H}_{12}\text{O}_6$	NaCl
$\text{C}_{12}\text{H}_{22}\text{O}_{11}$	NH_3

How would the compounds in these groups be chemically classified?

- (1) group A - inorganic
group B - organic
- (2) group A - organic
group B - inorganic
- (3) group A - monosaccharides
group B - disaccharides
- (4) group A - disaccharides
group B - monosaccharides

10. Organisms undergo constant chemical changes as they maintain an internal balance known as

- (1) interdependence
- (2) homeostasis
- (3) synthesis
- (4) recombination

Name: _____

Homework # 1.10

Date: _____

Homework: Protein and Lipids

1. The building blocks of proteins are _____.
2. A molecule with two amino acids units is a _____.
3. The formation of a larger molecule from two smaller molecules accompanied by the giving off of water is known as _____.
4. Fats may be hydrolyzed to form fatty acids and _____.
5. An amino acid can be recognized if it has an amino group at one end and at the other end a (n) _____.
6. What elements are found in all organic compounds?
7. What inorganic compound plays a major role in most of the chemical reactions occurring in a living cell?
8. What process by which amino acid molecules are joined together?
9. Because urea is a nitrogen compound, it cannot be derived from the metabolism of :
a. amino acids b. proteins c. glucose d. polypeptides
10. Explain the differences between saturated and unsaturated fats?