**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Human Physiology**

**Inorganic and Organic Chemistry**

**Part A: Inorganic Chemistry**

**Match the correct term on the right with the statements on the left.**

|  |  |
| --- | --- |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 1. Proton (H+) acceptor  | a. Acid(s) |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2. Ionize in water to release hydrogen ions and a negative ion other than hydroxide (OH-) | b. Base(s) |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3. Ionize in water to release ions other than H+ and OH- | c. Buffer |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4. Formed when an acid and a base are combined | d. Salt |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6. Prevents rapid/large swings in pH |  |

**Part B: Organic Chemistry**

**Match the correct term on the right with the statement on the left**

|  |  |
| --- | --- |
| **\_\_\_\_\_\_\_\_\_\_\_ 1. Building blocks of carbohydrates**  | **a. amino acids** |
| **\_\_\_\_\_\_\_\_\_\_\_ 2 and 3 - Building blocks of fats**  | **b. carbohydrates** |
| **\_\_\_\_\_\_\_\_\_\_\_ 3. (See question #2)** | **c. fats (lipids)** |
| **\_\_\_\_\_\_\_\_\_\_\_ 4. Building blocks of proteins** | **d. fatty acids** |
| **\_\_\_\_\_\_\_\_\_\_\_ 5. Building blocks of nucleic acids** | **e. glycerol** |
| **\_\_\_\_\_\_\_\_\_\_\_ 6. Cellular cytoplasm is primarily built from this substance.** | **f. glycogen** |
| **\_\_\_\_\_\_\_\_\_\_\_ 7. The most important fuel source for body cells** | **g. nucleotides** |
| **\_\_\_\_\_\_\_\_\_\_\_ 8. Not soluble in water** | **h. monosaccharides** |
| **\_\_\_\_\_\_\_\_\_\_\_ 9. Contains C, H, and O in the ratio CH2O** | **i. proteins** |
| **\_\_\_\_\_\_\_\_\_\_\_ 10. Contain C, H, and O but have relatively small amounts of oxygen** |  |

**If the following statements are true, insert T in the answer blanks. If any are false, correct the underlined word(s) and insert your correction in the answer blank.**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 1. Phospholipids are polarized molecules.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2. Steroids are the major form in which body fat is stored.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3. Water is the most abundant compound in the body.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4. Nonpolar molecules are generally soluble in water.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 5. The bases of RNA are A, G, C, and U.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6. The universal energy currency of living cells is RNA.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 7. RNA is single stranded.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 8. The four elements comprising over 90% of living matter are C, H, N, and Na.