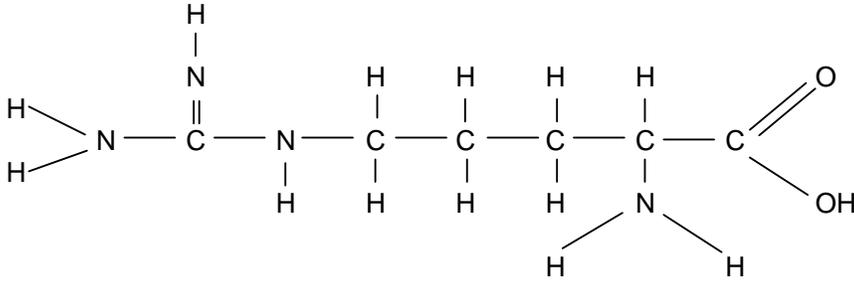


LESSON 2 - ASSIGNMENT

1. Differentiate between a fat and an oil in 1-3 sentences.
2. The following is a structural diagram for arginine:



List everything you can derive about this biomolecule from the structure.

3. A molecule is described to you as an aliphatic, polar glycolipid. Which of the following statements must then be true for the molecule (select all that are correct);

- a) it is soluble in water
- b) it must contain a nitrogen atom
- c) one part of the molecule contains a charge
- d) part of the molecule is hydrophobic and part is hydrophilic
- e) the molecule contains a lipid bound to an amino acid
- f) the molecule contains a carbohydrate residue
- g) the molecule has a ring structure

4. Write a paragraph explaining why functional groups (side chains) are important in the function of proteins.

5. Draw a structural diagram for each of the following:

- an amino acid with a methyl side chain
- a three carbon carbohydrate
- a monounsaturated five carbon fatty acid