

Chem. 100

Practice Exam 5

What are the parts and functions and uses of each of the following:

a) triglycerides b) Phosphoglycerides c) Sphingolipids d) Glycolipids e) Steroids

How does melting point of a fatty acid change with its degree of saturation?

What are fatty acids? How are saturated, unsaturated and polyunsaturated the same and different?

What is the affect of each of these reactions on a fatty acid hydrolysis, addition, oxidation, saponification

Draw the structure of the steroid nucleus?

What is a fatty acid? What is a fat? What is an oil? What is the difference?

What is a saturated fatty acid and an unsaturated fatty acid how are they different?

What is amphipathic?

What is a lipid bilayer?

What is a pentose, , hexose, tetrose, aldose, ketose, D and L-isomers, draw one of each.

Draw glucose and fructose.

How do you figure out how many stereo isomers exist for a structure?

What is a reducing sugar, how do you test for them which sugars are reducing and nonreducing sugars?

What monosaccharides are in each of the 3 disaccharides?

What is a ketohexose, an aldohexose?

For each of the following polysaccharides

a) starch b) glycogen c) cellulose

What are the functions of each, where are they found?

How are they held together?

What are the smaller parts of each polysaccharide?

Which polysaccharides can and cannot be hydrolyzed internally by humans?

What is the structure of each polysaccharide?

What is denaturing a protein, how is it done?

What is a polymer? What are some examples?

What is a polypeptide?

What is the difference between alpha and beta helix?

What is the difference between hydrophilic and hydrophobic amino acids, where are they found?

What are proteins?

What is the difference between primary, secondary and tertiary structure of proteins?

What is a globular protein, an enzyme, fibrous protein? What are their functions?

What are nucleic acids? What is their function?

Draw a peptide bond?

What are zwitterions?

What is amphoteric?

Study the vocabulary on the study sheet 5 handed out in class