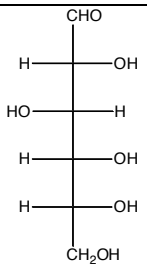
Chemistry 100 Name:_____

Practice Exam 5

For the following which saccharide best corresponds to the given example
d-glucose, l-glucose, d-fructose, d-galactose, lactose, sucrose, maltose, starch, glycogen, cellulose.

1.		Can be hydrolyzed to glucose and fructose
2.		Made of glucose and galactose
3.		Least sweet sugar
4.		Found in Milk
5.		Structural material in plants
6.		How carbohydrates are stored in plants
7.		Provides 50% of the carbohydrates in our diet
8.		The sweetest monosaccharide
9.		An aldohexose
10.		Found on surface of cell membranes
11.		Found with glucose in lactose
12.		Forms a 5 sided ring structure
13.		
14.		Not found free in nature, obtained only by hydrolysis of lactose.
15.		Most branched polysaccharide

For the following state which type of bond applies: glycosidic linkage, ester linkage, amide linkage, hemiacetal bond.

16.		Ether Linkage
17.		Bond between fatty acids and glycerol in triglycerides
18.		Broken during saponification
19.		Dipeptide bond
20.		Maintains primary structure in protein
21.		Bond formed and broken when a monosaccharide ring opens and closes
22.		
23.		Bond that is broken when a protein is hydrolyzed

For the following state which level of structure applies primary, secondary, tertiary, quaternary.

24.		Alpha helix
25.		found in fibrous protein
26.		found in enzymes
27.		maintained by hydrogen bonds
28.		broken down by denaturing
29.		found in muscle

For the following description state which type of molecule applies, proteins, lipids, carbohydrates

30.		Made of long chains of amino acids
31.		Steroids
32.		Fructose
33.		Amylose
34.		Serve as insulation of body's organs against temperature change and shock
35.		Globular form can act as catalysts
36.		4 cal/gram of energy
37.		Made by plants in a reaction called photosynthesis

For the following state if it best describes a fibrous protein or a globular protein

38.	long linear chains	
39.	have a primary structure	
40.	have a quaternary structure	
41.	held together by peptide bonds	
42.	can contain secondary structure	
43.	attracted to water	

For the following choose Denaturing or hydrolysis

44.		breaking the amide linkage
45.		happens when a strong acid is added
46.		breaks hydrogen bonds
47.		unfolds the protein
48.		destroys primary structure
49.		breaking of the polypeptide chain

For the following state which type of lipid applies a) Triglycerides b) Phosphoglycerides c) Sphingolipids d) Glycolipids e) Steroids

50.		Found in the lipid bilayer
51.		Main part of fat
52.		Found in brain or nervous tissue
53.		Testosterone
54.		Made of three fatty acids and glycerol
55.		Can undergo the saponification reaction

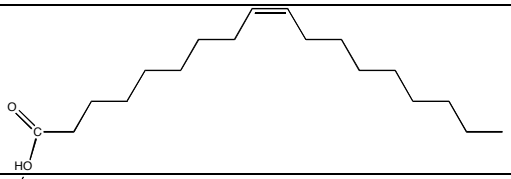
Rank the following in order of melting point: 1 is highest melting point, 5 is lowest

56.		Cis monounsaturated fatty acids
57.		Saturated fatty acids
58.		Trans mono unsaturated fatty acids
59.		Polyunsaturated fatty acids 3 double bonds
60.		Polyunsaturated fatty acids 2 double bonds

Draw the following

d-Fructose:	d-Glucose:

For the following use all of the following answers that apply: a) saturated fatty acid, b) Cis unsaturated fatty acid, c) trans unsaturated fatty acid d)polyunsaturated fatty acid

61.		Can be hydrogenated
62.		Raises blood cholesterol
63.		Have at least one carbon-carbon double bond
64.		Found in large amounts in oils
65.		Non polar
66.		Found in triglycerides
67.		Highest melting point
68.		Lowest Melting point
69.		Produced in hydrogenation of cis unsaturated fatty acids.
70.		Can undergo saponification to make soap
71.		
72.