

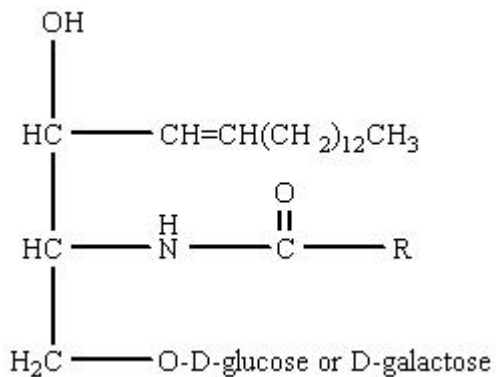
Name: \_\_\_\_\_

Date: \_\_\_\_\_

- [4 pt] 1. Draw the structure of a phospholipid that when hydrolyzed yields: glycerol, phosphoric acid, palmitic acid and ethanolamine. Circle the hydrophilic part of the molecule.

- [4 pt] 2. Draw the structure of the sphingolipid that when hydrolyzed yields: sphingosine, oleic acid, phosphoric acid and choline. Place a square around the hydrophobic part of the molecule.

- [3 pt] 3. What class of molecules does the following compound belong too? Circle the amide bond.

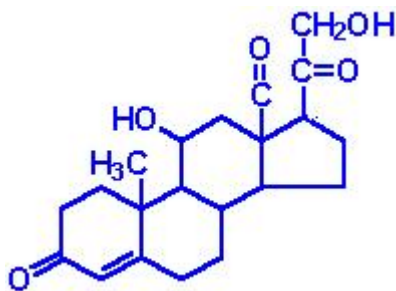


3. \_\_\_\_\_

- [4 pt] 4. Why are cholesterol and arachidonic acid important classes of compounds. What is similar about cholesterol and arachidonic acid? (Use complete sentences.)

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- [4 pt] 5. Aldosterone is responsible for blood pressure, fluid volume and increases  $\text{Na}^+$  uptake. Identify as many structural features on the molecule as you can.



- [4 pt] 6. Generically sketch a portion of a micelles that forms from palmitic acid. Identify which part is hydrophobic and hydrophilic.

- [4 pt] 7. How are micelles and liposomes alike? How are they different? (Use complete sentences.)

- [4 pt] 8. What is atherosclerosis. In general, how is it produced and what are its symptoms? (Use complete sentences.)

- [4 pt] 9. Briefly discuss why Statin drugs are so effective at reducing cholesterol levels. (Use complete sentences.)