

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

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

- [5 pt] 1. Define the term "biological pathway" and give an example of one. Include a properly labeled (parent, daughter, enzymes) sketch in your answer. Explain why your example fits the definition of a biological pathway.
- [4 pt] 2. Why are cholesterol and arachidonic acid important compounds. What is similar about cholesterol and arachidonic acid? (Use complete sentences.)
- [4 pt] 3. What is atherosclerosis. In general, how does it occur and what are its symptoms? (Use complete sentences.)
- [4 pt] 4. Briefly discuss why Statin drugs are so effective at reducing cholesterol levels. (Use complete sentences.)

**CHE 102 - Homework - Ch 28cd**

[6 pt] 5. Generically sketch a portion of a micelles that forms from palmitic acid. Identify which part is hydrophobic and hydrophilic.

[4 pt] 6. How are micelles and liposomes alike? How are they different? (Use complete sentences.)

[5 pt] 7. Draw a dehydration reaction showing the formation of a phospholipid. You may choose whatever components you want. Do not use the example given in class or the book.

[4 pt] 8. Draw the reaction between (a) unsaturated FA and  $\text{Br}_2$  and (b) a saturated FA and  $\text{Br}_2$ . You may choose whatever FA's you want. Do not use the example given in class or the book.

(a)

(b)

[4 pt] 9. Draw an example of (a) Hydrogenation of a FA and (b) Dehydrogenation of a FA. You may choose whatever FA's you want. Do not use the example given in class or the book.

(a)

(b)