

Date _____ Class _____ Name _____

2 – Organic Chemistry

Examine the chemical processes below, then determine if they are undergoing dehydration synthesis or hydrolysis.

1. The production of a disaccharide from glucose and fructose.

2. The digestion of fat into glycerol and 3 fatty acids.

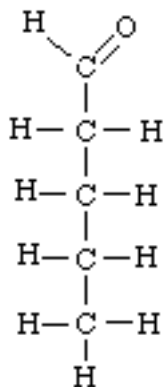
3. Building a DNA molecule from nucleotides. _____

4. The breaking down of glucose into two molecules of pyruvate.

5. Stringing amino acid together to form a protein.

Answer the following questions concerning Figure 2.1.

Figure 2.1



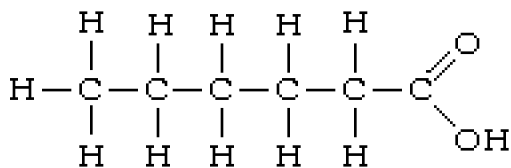
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6. What type of organic molecule is represented in Fig 2.1?

7. Why?

8. What is the empirical formula for the molecule in Fig.2.1?

Figure 2.2



9. What type of organic molecule is represented in Fig 2.2? _____

10. Why?

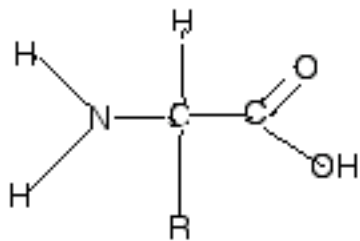
11. What is the double bonded oxygen, hydrogen end group called?

12. Is the above molecule saturated or unsaturated?

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13. What is the empirical formula for the molecule in Fig.2.1?

Figure 2.3



14. What type of organic molecule is represented in Fig 2.3? _____

15. Why?

16. What is the NH₂ group called? _____

Answer the following questions concerning enzymes.

17. What is the purpose of enzymes in living systems?

18. What are the two parts of an enzyme system?

19. What is one of the unique properties of enzymes besides the answer to question 18.

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Answer the following questions using complete sentences:

1. What are the differences between a saturated and unsaturated fat?

2. List the examples of protein and give the function of each.
