

Name: \_\_\_\_\_ Block: \_\_\_\_ Date: \_\_\_\_\_

### Biochemistry Unit 1 Review

Test format: 20 multiple choice, 10 illustration, 8 naming

Complete the following questions. (Record your answers on a separate sheet of paper.)

1. What elements are found in organic compounds (list)?
2. Describe organic reaction rates.
3. What kind of bonding is there in organic compounds?
4. Why are there so many organic compounds?
5. What is an isomer? Draw octane and 4 isomers.
  
6. Draw the structural formula for methane. Write its molecular formula.
7. What is the geometric shape of methane?
8. What is the bond angle around a carbon atom?
9. What do the dashes around a carbon indicate?
10. What are two products from the combustion of any hydrocarbon?
11. What is a functional group?
12. List the general formulas for:  
Alkanes - \_\_\_\_\_ Alkenes - \_\_\_\_\_ Alkynes - \_\_\_\_\_
13. Ring carbons are referred to as \_\_\_\_\_?
14. Define saturated and unsaturated.
  
15. List and define 6 types of organic reactions.

16. Write the formula for:

7 carbon alkene - \_\_\_\_\_

15 carbon alkyne - \_\_\_\_\_

10 carbon alkane - \_\_\_\_\_

17. List the molecular formula (R- ) and define the following functional groups.

a. alcohol:

b. aldehyde:

c. ketone:

d. carboxylic acid:

e. amine:

Draw the following compounds

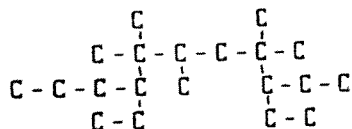
18. <b>3,5-diethyl-7-isopropyl-6-secbutyl dodecane</b>	19. <i>trans</i> - <b>3,4-methyl- 2-nonene</b>
20. <b>1-bromo-3-ethyl-5-methyl-benzene</b>	21. <b>1,2-diethyl- 2-methyl- 4-t-butyl cyclo-octane</b>

22. 4-cyclopropyl- 2-heptyne

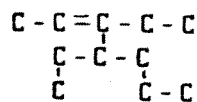
23. 3,4,6,9-tetraethyl undecane

For the following, record the name of the compound.

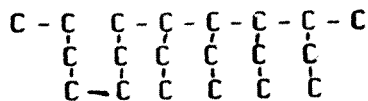
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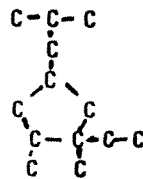
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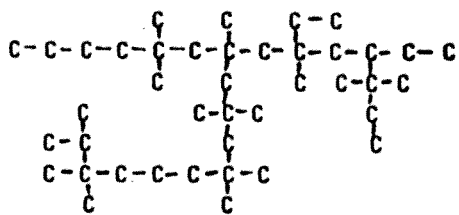
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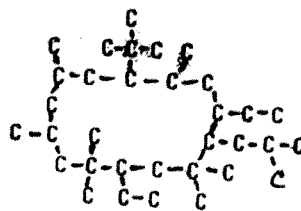
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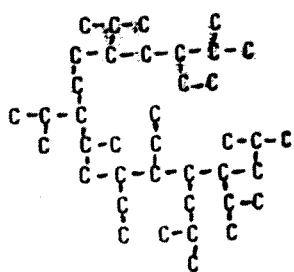
28.



29.



30.



31.

