CHEM 210 Module 1 - 8

and

CHEM 210 Exam 1 - 8 Newest

CHEM 210 Module 1

1. **True or False: According to the Module, a compound with a molecular mass of 1,000 g/mol is considered a macromolecule. ANS** False

2. **True or False: Biomolecules can have only two functional groups. ANS**

False

3. **True or False: In a eukaryotic cell, the organelles called ribosomes serve**

thepurpose of digesting macromolecules. ANS False

4. **True or False: Carbon dioxide has a linear molecular shape AND has a bond angle of 109.5 degrees ANS** False

5. **_____is a functional group found in carbohydrates. ANS** alcohol

6. **A_____is a chemical formula that shows how the atoms of a molecule are bonded to one another. ANS** kekules structure

7. A collection of two or more macromolecules uniting is called a_____.

ANS -

supramolecular complex

8. **An organic compound with this structure, C=C, contains a_____functional group. ANS** alkene

9. **Scientists refer to_____as the "super glue" of the chemistry. ANS**

carbon

10. **What molecule is most important for energy storage in cells? ANS** ATP

11. **For butane, there are_____carbon and_____hydrogen atoms. ANS**

4,10

12. For an organic compound, which structure is the most efficient to draw?-

ANS line bond

13. **When writing an organic functional group, scientists often write an "R" as part of the structure. What does the R indicate? ANS** rest of the molecule

14. **According to the module, the study of NON-carbon compounds is referred to as____. ANS** inorganic

15. **Which number would be closest to the approximate number of ribosomes in an E. coli cell? ANS** 26,000

16. **Which of the following would most likely have a cell wall? ANS** fungal cells

17. **Eukaryotes have molecules that provide a protective structure. This net-work, which is found in all eukaryotes, is called the_____. ANS** cytoskele-ton

18. **The molecule linked to the medical condition of gout is_____. ANS** uricacid

19. **About how many different elements are found in living organisms? ANS** 30

20. **Explain the common similarity in all prokaryotic and eukaryotic cells. Explain the similarity in at least two sentences. ANS** The fundamental similarity is that each cell type has a plasma membrane that separates life from non-life. The plasma membrane acts as a barrier to most molecules but does have proteins thatpermit select molecules to cross via proteins (transporters). The