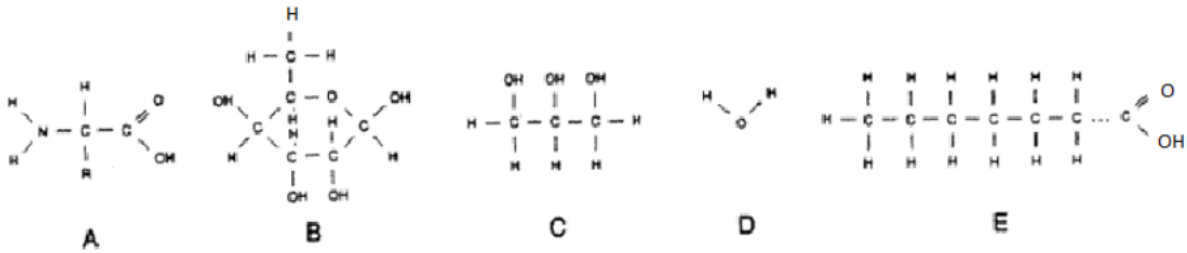


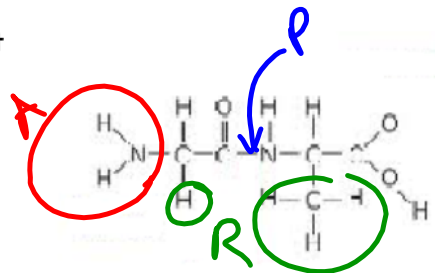
ORGANIC MOLECULES

The diagrams below show organic and inorganic molecules. Answer the questions that follow by writing the letter or letters of the correct diagram(s) in the space provided.



1. A Which molecule is the building block of protein?
2. B Which molecule has the formula $C_6H_{12}O_6$?
3. C Which molecule represents a glycerol molecule?
4. A, E Which 2 molecules contain carboxyl groups?
5. C, E Which 2 molecules are the building blocks of a lipid?
6. D Which molecule is inorganic?
7. B Maltose is produced when two of which type of molecule are bonded?
8. D Which molecule functions as a solvent in the cell?
9. A Which molecule has 20 different forms in the cell?

Use the molecule below to answer the questions that follow.



10. Circle the amine group and label it A.
11. Circle the two R groups and label them R.
12. Circle the peptide bond and label it P.
13. Describe how a peptide bond is formed. _____

dehyd. synth of 2 amino acids
bond btwn C-N

CHEMISTRY OF LIVING ORGANISMS

1. Carbohydrates, lipids and proteins are all classified as organic compounds.
2. Carbohydrates contain C, H, and O elements.
3. Two monosaccharides may be joined together to form a disacch. and a molecule of H₂O by a process known as dehyd. synthesis.
4. Two examples of monosaccharides are glucose and fructose.
5. Two examples of disaccharides include Sucrose and lactose.
6. Most carbohydrates end in the letters ose.
7. A major difference between carbohydrates and lipids is in the ration of H to O.
8. The monomers of lipids include glycerol and fatty acids.
9. Three fatty acids and a molecule of glycerol can be put together by dehydration synthesis to make a molecule of triglyceride + 3H₂O.
10. One important function of lipids is that they are part of a cell structure know as the cell membrane.
11. In addition to containing carbon, hydrogen and oxygen, proteins also always contain the element N.
12. The building blocks of proteins are amino acids.
13. Two amino acids are joined by a peptide bond.
14. Many amino acids joined together to form a polypeptide.
15. A polypeptide can be broken down by the process known as hydrolysis.
16. _____ are the organic catalyst of living systems.
17. These organic catalysts can _____ the activation energy needed for a reaction to occur, which in turn makes the reaction go _____.