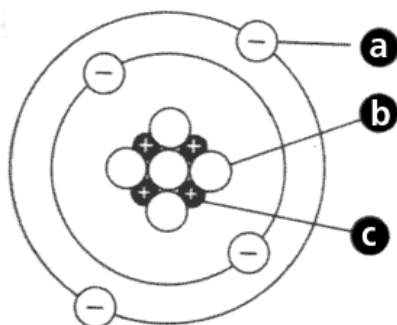


Molecules of Biology Test

1. Label the following atom with the correct particles (3)



2. Draw a water molecule, labeling the parts. (2)

3. Water will bond to water, and also with other molecules. This is...

- A. Cohesion and adhesion
- B. Temperature moderation
- C. Low density of ice
- D. Ability to dissolve other molecules
- E. Neutral (not acid or base)

4. How do the properties of water enable life on earth? (They're listed above. Use all five for full points.) (5)

5. What are the six atoms common to all life (6 points)?

6. Explain monomers, dimers, and polymers. Use pictures, if possible. (3)

7. To create a polymer bond, the molecule must be dehydrated. What is that?

8. The opposite of dehydration is hydrolysis. Explain hydrolysis. (1)
9. List the four macromolecules. (4)
10. What is the definition of monosaccharide, and give one example. (2)
11. What is a disaccharide, and give one example. (2)
13. Give three examples of polysaccharides, and describe each. (6)
 - A.
 - B.
 - C.
14. Draw a typical fatty acid. Label the parts. (2)
15. Besides fatty acids, what is another lipid? (1)
16. What is the difference between a saturated and unsaturated fat?
17. About how many amino acids are common to life?
 - A. About 5
 - B. About 10
 - C. About 20
 - D. About 50
18. What is another name for a polypeptide?
19. When a protein is cooked, it is denatured. What does this mean?
20. What is an enzyme?
21. One enzyme we worked with is catalase, which breaks hydrogen peroxide down into water and oxygen. Why didn't the cooked meat bubble?
22. An enzyme lowers the energy needed for a reaction. Why is this good? /25

23. What is one nucleic acid?

24. Describe what a strand of #23 looks like. Draw, if desired.

25. Why do fatty acids group together?

Match the following by writing the correct letter to the left:

_____ 25. hormone

_____ 26. RNA

_____ 27. amino acid

_____ 28. fiber

_____ 29. DNA

_____ 30. polypeptide

_____ 31. cholesterol

_____ 32. glycogen

_____ 33. enzyme

_____ 34. steroid

_____ 35. disaccharide

A. carbohydrates

B. lipids

C. proteins

D. nucleic acids