

Name _____

Period _____

Bonding Test Review

Test Reviews are worth 10 extra points on your test grade. All questions must be answered. Come into tutorials to check if your answers are correct. TEST REVIEW DUE ON THE DAY OF THE TEST!

1. Compare and contrast a stable and unstable atom.
2. Are majority of the atoms on the periodic table stable or unstable? Explain.
3. What is the duet-octet rule and how does it affect bonding?
4. Draw a Bohr's models of a Sodium atom and a Neon atom and compare to each other.
5. What subatomic particles are responsible for bonding and how do they affect the bonding process?
6. Compare and contrast intermolecular and intramolecular forces. Give 3 examples of each.
7. Compare and contrast covalent and ionic bonds. Give an example of each.
8. Compare and contrast polar covalent and nonpolar covalent bonds. Give an example of each.
9. Draw a Lewis dot structure of Sodium & Chlorine. Why would Sodium bond with Chlorine? What type of bond would it be?
10. Draw a Lewis dot structure of Hydrogen and Carbon. How many Hydrogens would it take to make the compound stable?
11. What on the periodic table gives information for the # of valence electrons, # of orbitals, and electronegativity?
12. Define electronegativity and how it affects elements as they increase in atomic number. Which element is the most electronegative?

13. Why is water like a magnet? Draw out water and label the partial charges. Label the hydrogen bond and covalent bond.

14. What are the charges on Sodium Chloride? Na Cl

15. Why do ions have an electrical charge?

16. Compare and contrast a cation and anion.

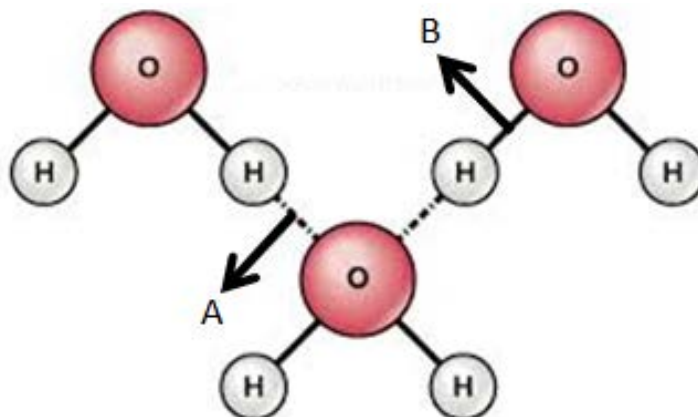
17. What is the charge of an electrically neutral substance?

18. What is a hydrogen bond and where can it be found in living organisms?

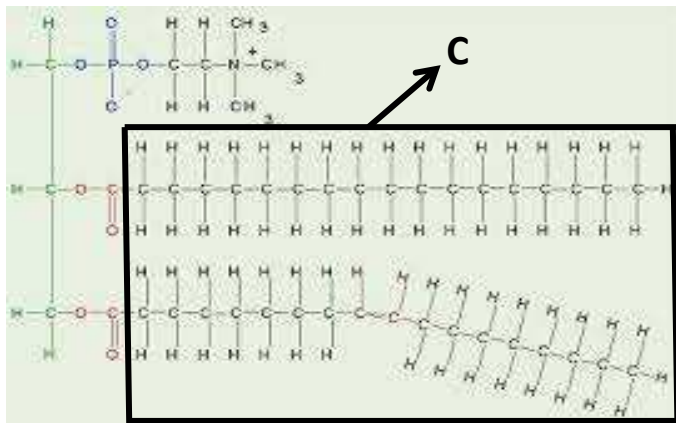
19. What do intramolecular forces hold together? What do intermolecular forces hold together?

20. Label the following polar covalent bond, nonpolar covalent bond, ionic bond, or hydrogen bond. Label whether they are an intramolecular force or intermolecular force.

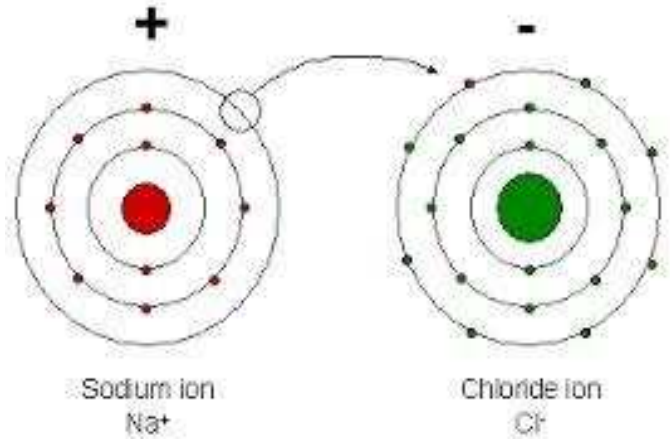
A. _____ B. _____



C. _____

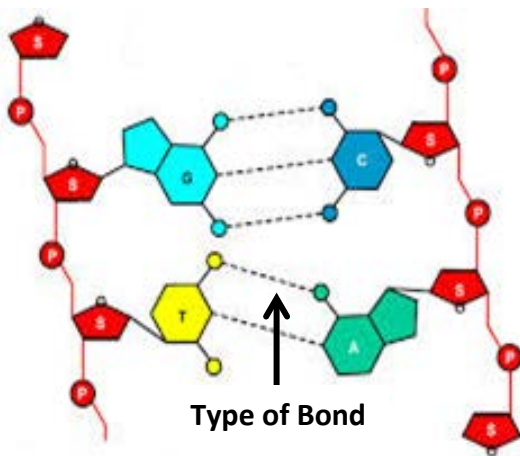


D. _____



21. Why would some atoms have single bonds vs. double bonds?

22. Label the following molecule's name and the name of the bond indicated.



23. Define electrostatic force. What are the rules of attraction and repulsion between electric charges?

24. Another name for a chemical bond is _____. This helps hold together molecules.

25. What is a diatomic element? What are the 7 diatomic elements?

26. State in your own words what electrically neutral means.

27. Use the drop and switch method: $\text{Rb}^{1+} \text{N}^{3-}$

28. Draw and label a peptide bond. Which biomolecules has peptide bonds?