Ch 32 - Electrostatics Reading Guide Name_____ Block____

1. Electrostatics represents electricity at _____.

2. Electricity is a _f_____ acting on you all the time, much like gravity.

3. What is charge? _____

4. Summary of 4 properties of atoms:
   *every atom has _____charged nucleus.
   *all _____ are identical with the same mass and charge.
   *a proton has nearly _____x the mass of an electron.
   *atoms usually have as many electrons as protons giving them no net _____.

5. What is the fundamental rule at the base of all electrical phenomena?

6. A charged atom is called an _____.

7. Which electrons in an atom are bound loosely? _____

8. Summarize the conservation of charge into a single sentence: _____

   _____

9. The formula for Coulomb's law is $F = K\frac{q_1 q_2}{d^2}$. What does each letter stand for?

   k = _____ (list the value)

   q= _____ and d= _____

10. What is the SI unit for charge? _____

11. What makes something a good conductor, and list an example.

12. What is an insulator? Give an example.

13. What is an example of a semiconductor and what are they used in?

14. What temperatures do superconductors work best?

15. What are 3 ways to charge on object?

16. What does induction mean?

17. When does charging by induction commonly occur?

18. What does it mean to say that something is electrically polarized?