

Static Electricity Test Outline:

Part 1: Multiple Choice answers.

Things to remember:

Parts of an atom, what charge are each, which are free to move about?

What does the word static mean?

What happens to static charges eventually (do they last forever? Why or why not?)?

What did Benjamin Franklin learn about electricity? What part of his theory was backwards?

Describe the three ways of charging an object (conduction, induction, friction).

What is an insulator? What is a conductor? Compare and contrast them. How do they relate to acquiring a static charge?

Why are some places safer than others during a lightning storm?

Law of Electric Charge vs. Coulombs Law

(to recap: Law of Electric charge says opposite charges attract, like charges repel. Coulombs Law says that the force between two charged particles increases with an increase in charge and decreases with an increase in distance between the particles)

Part 2: Charge diagrams and other short answers.

You will have to draw a few charge diagrams. I will show you an example below on the next page. Remember:

Make sure the number of positive and negative charges are consistent (so don't add a bunch of electrons from thin air)

Don't move the positive charges

Make sure I can tell the difference between your positive and negative charges

Draw each item before and after the encounter (see example)

There will also be a couple of short answers. Remember your three ways to charge an object. You may want to draw a diagram to help show your understanding.

A vinyl strip is rubbed with cotton and the vinyl strip touches a pith ball

- look at electrostatic series, The vinyl will become negative

