

PSC-436 Quiz #6

Name:

Date:

1. Write the numbers 1-6 in the spaces below to indicate the chronological order of the events (1-first chronologically... 2-second chronologically...etc.).

___ Oersted pointed out that an electric current will deflect a compass needle.

___ Thales noticed the electrostatic attraction between silk and amber.

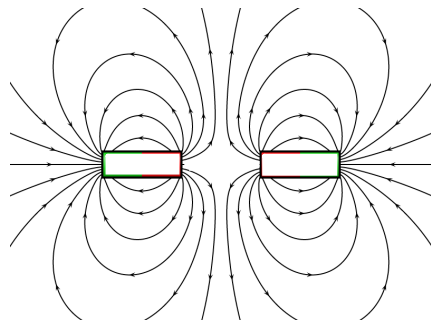
___ Faraday used magnetic induction to generate electric current.

___ Using electrolysis, water was demonstrated to consist of hydrogen and oxygen.

___ North and south poles of magnets were demonstrated by Maricourt.

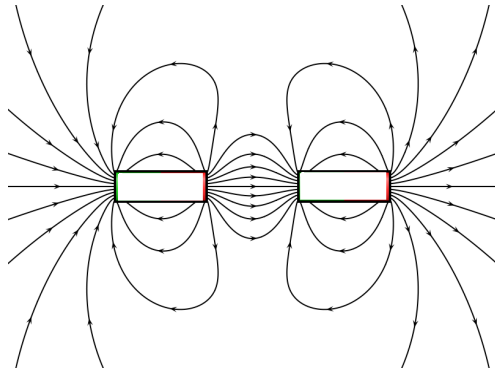
___ Gilbert was able to pass electric charge to a number of substances.

2. a) Label the poles of the following magnets:



b) Are the magnets attracting or repelling? _____

3. a) Label the magnets below:



b) Are the magnets attracting or repelling? _____

4. The following statements are related to electric motors and generators:
Indicate whether each statement is true or false. For each false statement, rewrite it to make it true.

___1. The rotor is the mobile part of an electric motor.

___2. The stator is the stationary part of an electric generator.

___3. A generator converts electrical energy into mechanical rotational energy.

___4. In a motor the mechanical rotation of a conducting coil in a magnetic field produces an electromotive force in the coil.

___5. The power of a generator can be increased by adding turns to the electromagnet coil.

___6. The power of a generator can be increased by increasing the electromotive force of the power supply.

___7. A motor uses electricity.

___8. A generator produces electricity.

5. Indicate whether alkaline batteries, or recyclable batteries would be better for each of the following devices. Also, explain why.



Type of battery: _____

Reason: _____



Type of battery: _____

Reason: _____

6. Give one disadvantage of each type of battery:

disadvantage of alkaline batteries: _____

disadvantage of rechargeable batteries: _____

7. Which colors of wires are combined in a circuit which delivers:

a) 120V _____

b) 240V _____

8. After hair is combed with a plastic comb, the hair is attracted to the comb. Explain.

9. Why does plastic wrap work to seal a bowl?

10. Label the voltmeter below with the numerical reading that would be expected:

