Name _____ Date _____ Period _____

Completing Concepts

In the space provided write the answer that best completes each statement.

_____ 1. The electric _____concept is used to describe the behavior of one charged object when near another charged object.

_____ 2. Electric field _____ are drawn to show the path that would be followed by a positive test charge placed in the field.

_____ 3. The direction of the force on the test charge near a _____ charge is away from the charge.

_____ 4. The difference in potential between any two points in a field is the _____ required to move a unit of whatever is affected by the field between the two points.

_____ 5. The electric field between two charged parallel plates is _____ except near the edges.

_____ 6. When electrons are forced away from a(n) _____ plate, work is done.

_____ 7. _____ is a unit of electric field intensity.

_____ 8. In electrical terminology, one joule per coulomb is one _____.

_____ 9. An American physicist, _____, first measured the charge on an electron.

_____ 10. The charge on one electron is _____ coulombs.

_____ 11. An object can only have a charge that is an integral multiple of the charge on the _____.

_____ 12. If two charged spheres are touched together, electrons will move to the sphere with the _____ potential.

_____ 13. _____ occurs when an object feeds all of its charge to the earth and becomes neutral.

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Understanding Concepts

In the space provided write the letter of the answer to each question.

_____ 1. Potential differences is calculated by multiplying field intensity units by
a. joules b. meters c. watts d. volts

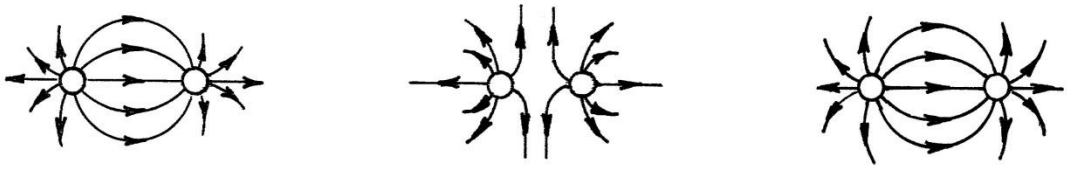
_____ 2. What is the unit of electric intensity?
a. V b. J/C c. N/C d. J/s

_____ 3. The work done on an electric charge equals?
a. IR b. q/t c. Vq d. It

_____ 4. The direction of an electric field is the direction that a _____ test charge will move when placed in the field.
a. negative b. positive c. neutral

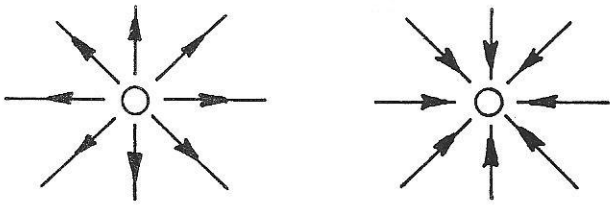
_____ 5. Which diagram represents the electric field surrounding two unlike charges?

a. b. c.



_____ 6. Which diagram shows lines of forces about a positive test charge?

a. b.



_____ 7. An oil drop has a charge of 8.0×10^{-19} C. How many excess electrons does the oil drop have?

a. 1
b. 3
c. 5
d. 7