جامعـــة الشهيد حمه لخضر الـــــــوادي

كلية العلوم الدقيقة

أولى ماستر فيزياء 2018/2017

الثلاثاء 2018-01-09

المدة: ساعة ونصف

امتحـــان في مقيـــاس الانجليـــــزية

الاسم واللقب: .....

I- Answer the following questions:

1- Ist right that the greater the electric charges on the objects, the greater will be the electrostatic force?
.....

2- Does the force of repulsion between two electrons increase or decrease with distance?
.....

3- Name three ways in which a material can be charged?
.....

4- Depends on what the strength of the attraction or repulsion force?
.....

5- How the valence electrons share the energy applied to them?
.....

6- What is the polarity of the charge of an object that has less electrons than protons?
.....

II- Fill in each gap with one word:

pick, exists, solve, problems, First, calculate, than, more, we, seen, apply, Next, draw, represented.

So far, we have .....Coulomb's Law and some examples of how to .....magnitudes of the electrostatic force that .....between two objects with charge. Now we will turn our attention to some ..... sophisticated .....and explore the vector nature of Coulomb's Law in which we .....it to situations involving more..... two charges. To do this .....will need a strategy. My strategy is as follows and this methodology will be used to. .....all of the problems that involve vectors. ....., you need to .....a convenient coordinate system. It does not matter what that coordinate system is, but the choice should be well suited to the physical situation and you need to be consistent when assigning algebraic signs to the vector quantities based upon this coordinate system. ..... I will .....all of the vectors that represent the physical quantity of interest on the object of interest. Typically this means that I will pick a charge and draw all of the forces, say, that act on that charge. I will then break up those physical quantities .....by the vectors into their components (based on the choice of coordinate system) and sum the vectors algebraically to calculate the net components associated with a particular physical quantity in a particular direction. I will then report the result as a vector (using unit vector notation) or as a magnitude and a direction.

III- Translate from English into Arabic:

During the 18th century, a scientists named Coulomb experimented with electrostatic charges and came up with a law of electrostatic attraction, which is commonly referred to as Coulomb's law of electrostatic charges. The law is: the force of electrostatic attraction or repulsion is directly proportional to the product of the two charges, and inversely proportional to the square of the distance between them. Of course, the more surplus electrons that a charged object has, the greater its negative charge will be. And the greater its lack of electrons, the greater its positive charge.

الترجمة على الورقة من خلف

تصحيح النموذجي لامتحان الانجليزية 2017/2018

أولى ماستر

I_ Answers:

1_ yes.

2_ decrease.

3_ Friction, Contact, induction.

4_ depends on two factors: 1_ The amount of charge that is on each object. 2_ The distance between the objects.

5_ equally.

6_ positive.

II The filling of the gaps:

Seen, calculate, exists, more, problems, apply than, we, solve, first, pick, next, draw, represented

IV_ The description:

When a negatively charged rubber rod is brought close to a neutral aluminium rod, electrons are repelled to the other end, where they can be drained. When the finger and rubber rod are removed the aluminum will have a positive charge.