# جامعـــة الشهيد حمه لخضر الـــوادي

كلية العلوم الدقيقة

أولى ماستر فيزياء 2021/2020		
السبت 05-06-2021		امتدان ذي مغياس الانجليزية
المدة: ساعة ونصف		
Section A	الفوج:	الاسم واللقب:

### I- Answer the following questions:

1- Define the atomic number of an element?

The atomic number of an element is the number of protons that each atom has in its nucleus.

2 - What is the maximum number of valence electrons in an atom?

The maximum number of valence electrons in an atom is 8 (Eight) electrons.

3- What is the difference between the valence shell and the outer shell? No difference

4- What is a «valence electron»? Electrons of the outer shell

5- What is the polarity of the charge of an object, that has more electrons than protons? Negative

#### II- Fill in each gap with one word:

- 1- The nucleus is the central part of the atom.
- 2- Electrons revolve in orbits around the nucleus of an atom.
- 3- The proton is one-third the diameter of an electron, but it almost 1840 times heavier than the electron.
- 4- The proton has a positive electrical charge.
- 5- 1 inch = 2.54 Cm, 1 feet = 30.48 Cm, 1 mile = 1.609 Km

### III- Translate from English into Arabic: (07pts)

English	Enough is enough	move	produce	Little over	types	make up	lighter than air
Arabic	يكفي يعني يكفي	يتحرك	ينتج	أكثر بقليل	أنواع	تشكل	أخف من الهواء

English	light	By the same token	Reduce	combination	yet	Separation	electrical field
Arabic	ضوء	على نفس المنوال	يقلص	اتحاد	نعد	فصل	حقل كهربائي

# **Section B**

#### I- Answer the following questions:

- 1- How many valence electrons have the best electrical conductors?

  Only one
- 2- What particles are found in the nucleus of an atom? In the orbits?

  The nucleus of an atom contains protons and electrons, in the orbits we can find electrons
- 3- What is matter?

Matter is anything that has weight and occupies space.

- 4- Name two semiconductors, and two conductors?

  Two semiconductors = Si, Ge ... Two conductors = Copper, Silver.
- 5- Is salt an element or a compound? Oxygen? Water? Salt is compound, ... Water is compound, ... Oxygen is element.

### II- Translate from English into Arabic:

- Everything we see about us is made from the elements. But the elements themselves cannot be produced.

- A positive ion is produced when a parent atom loses an electron.

- Electrical conduction is the flow of free electrical charge through a material

- Metals are good conductors

- Basically, an atom contains three types of subatomic particles.

أساسا، تحتوي الذرة على ثلاثة أنواع من الدقائق دون الذرية.

حولنا، من حولنا :About us

Produce : ينتج The flow : التدفق سمي : Name

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