Biology: First year English Language Course **5 July 2019**
Time allowed: 2 hours

1. VERB FORMS (5 points). *Give the correct forms of the verbs and, when required, pronouns or adverbs. You may have to use negative forms, and auxiliary verbs as well as main verbs. Look at the example below.*

Example: When the telephone _____ (RING) I _____ (WATCH) television.
When the telephone _rang_ I _was watching_ television.

1. Alan says he _____ (**SPEAK**) to Anne about this problem if he _____ **(SEE)** her tomorrow.

2. At the moment I _____ (**STUDY**) Spanish because I _____ (**GO**) to South America next month.

3.**A**: _____ Mary _____ (**BE**) to the United States? **B**: Yes, she _____ (**GO**) there in 2006.

4. What _____ you _____ (**DO**) if you _____ (**HAVE, negative**) to go to work?

5. The pop singer Vasco Rossi _____ (**GROW**) up near Bologna. He _____ (**BE)** to Sardinia many times.

2. QUESTION FORMATION (5 points). *Write appropriate questions for the following five answers. Look at the example below.*

Example: It's half-past nine.
What time is it, please?

1. I'm 19.

2. No, I don't like Chinese take-away food.

3. I've got two sisters and one brother.

4. Mary's lived in Quartu for ten years.

5. I'm studying biology.

3. SENTENCE TRANSFORMATION (5 points). *Complete the second sentence so that it has the same meaning as the first.* ***Do not use more than five words****. Look at the example below.*

Example: You are too young to drive a car. You are __*not old enough*__ to drive a car.

1. Mary is older than David.	→ David _____ Mary.
2. Remember to tell Efisio.	→ Don't _____ Efisio.
3. They speak German in Alto Adige.	→ German _____ in Alto Adige.
4. This car belongs to Nicoletta.	→ This _____ car.
5. These shoes are too expensive.	→ These shoes cost _____ money.

4. GUIDED WRITING (5 points).
You have received an email from your friend in Milan. He/she has asked you if you would prefer to work in Milan or in Cagliari. Write a reply to your friend. Do the following things: 1) thank him/her for the email; 2) say what kind of job you would like to have; 3) explain why you would prefer to work in Milan or Cagliari (think about the climate, seeing friends and parents, money, etc.). Write at least 70 - 100 words. You can write more words if you want.

Segue sul retro

5. LEXIS FOR BIOLOGY (10 points). *Read all of this text. Then write an appropriate word or expression for each of the 10 spaces. Look at the example in number* ***0****.*

The periodic table of elements

An *element* is a substance **(0) m** _made_ of atoms that have the same number of protons. All the known elements are organised and displayed in the 'periodic table of elements'. Most of us **1) h** _______ seen this table hanging on the wall of the chemistry laboratory in our school or university. Today it seems banal. But when the Russian chemist Dimitri Mendeleev produced this table in 1869 it was revolutionary. The periodic table is more **2) t** _______ just a simple list of elements; it also offers a very useful a way of categorising and sorting them.

Each row of the table is called a *period*. Moving across the table horizontally, you go from metals to nonmetals, with heavy metals in the **3) m**_______ . Each column of the table is called a *family* or a *group.* Elements within the same group have similar properties. Mendeleev showed that there is a repeating pattern – a periodicity – in these properties and that they are the building blocks of the universe. For example, each element has a number associated with it. This is the *atomic number*, **4) w**_______ means the number of protons in the nucleus of a particular element. So, for example, carbon has six protons in the nucleus of one atom, so its atomic number is 6.

Living things use only a few of the elements in the periodic table. The four most important elements found in organisms are hydrogen, carbon, **5) n** _______ and oxygen. Other elements that are found in small amounts in living things include sodium, **6) m** _______, phosphorous, sulphur, calcium, and potassium. These elements often circulate in the body as *electrolytes*, that is, as substances that release *ions* when they break apart in **7) w**_______. For example, when sodium chloride (NaCI) is in the watery environment of the cell, it breaks apart into the ions Na^+ and CI^-, which are then used in organs such as the heart or in cellular processes.

The periodic table that Mendeleev produced in 1869 consisted of sixty-one elements. Since then, scientists have **8) d**_______ several other elements. The most recent one, element 118, was formally named *oganesson* in 2016. In modern technological societies, many elements **9) a**_______ used in electronic devices. An Apple iPhone, for example, contains about seventy-five different elements that include carbon, hydrogen, silicon, copper and gold. However, certain elements that are crucial for the modern world are known as *endangered elements*. The light gas, helium, for example, which is mined from deep under the **10) g** _______ and used in MRI scanners (*apparecchi di risonanza magnetica*) in hospitals, is lost forever once it escapes into the air.

ANSWERS / SOLUZIONI

1. VERB FORMS (5 points). *Give the correct forms of the verbs and, when required, pronouns or adverbs. You may have to use negative forms, and auxiliary verbs as well as main verbs. Look at the example below.*

Example: When the telephone _____ (RING) I _____ (WATCH) television.
When the telephone _rang_ I _was watching_ television.

1. Alan says he _**WILL /'LL**____ (**SPEAK**) to Anne about this problem if he _**SEES**__ **(SEE)** her tomorrow.

2. At the moment I _**AM STUDYING**___ (**STUDY**) Spanish because I _**WILL /'LL GO**_/_**AM GOING**_**TO GO** _ (**GO**) to South America next month.

3.**A**: _**HAS**____ Mary _**BEEN**____ (**BE**) to the United States? **B**: Yes, she _**WENT**____ (**GO**) there in 2006.

4. What _**WOULD**__ you _**DO**__ (**DO**) if you _**DID NOT / DIDN'T**____ (**HAVE, negative**) to go to work?

5. The pop singer Vasco Rossi __**GREW**___ (**GROW**) up near Bologna. He _**HAS BEEN**__ (**BE**) to Sardinia many times.

2. QUESTION FORMATION (5 points). *Write appropriate questions for the following five answers. Look at the example below.*

Example: It's half-past nine.
What time is it, please?

1. I'm 19. **HOW OLD ARE YOU? / WHEN WERE YOU BORN?**

2. No, I don't like Chinese take-away food. **DO YOU LIKE CHINESE TAKE-AWAY FOOD?**

3. I've got two sisters and one brother. **HOW MANY BROTHERS AND SISTERS HAVE YOU GOT / DO YOU HAVE / HAVE YOU GOT ANY BROTHERS AND SISTERS?**

4. Mary's lived in Quartu for ten years. **HOW LONG HAS MARY LIVED IN QUARTU?**

5. I'm studying biology. **WHAT ARE YOU STUDYING?**

3. SENTENCE TRANSFORMATION (5 points). *Complete the second sentence so that it has the same meaning as the first.* ***Do not use more than five words****. Look at the example below.*
Example: You are too young to drive a car. You are __*not old enough*__ to drive a car.

1. Mary is older than David. → David _**IS YOUNGER THAN**_ / **IS NOT AS OLD AS** _ Mary.

2. Remember to tell Efisio. → Don't __**FORGET TO TELL**___ Efisio.

3. They speak German in Alto Adige. → German _**IS SPOKEN**____ in Alto Adige.

4. This car belongs to Nicoletta. → This _**IS NICOLETTA'S** ____ car.

5. These shoes are too expensive. → These shoes cost **TOO MUCH**____ money.

4. GUIDED WRITING (5 points).
You have received an email from your friend in Milan. He/she has asked you if you would prefer to work in Milan or in Cagliari. Write a reply to your friend. Do the following things: 1) thank him/her for the email; 2) say what kind of job you would like to have; 3) explain why you would prefer to work in Milan or Cagliari

(think about the climate, seeing friends and parents, money, etc.). Write at least 70 - 100 words. You can write more words if you want.

Credit will be given for good grammar, appropriate lexis and completion of the three tasks.

Example (96 words):

Dear John.
Thanks for your email which I was very pleased to receive. My reply to your question is that I hope to find a job as a biology laboratory assistant. It is very difficult to find this kind of work in Sardinia . So after I receive my degree from the University of Cagliari I will probably have to go to a city such as Turin or Milan where there are more job opportunities. The weather is better in Sardinia and the beaches are fantastic but one can't have everything in life !
Best wishes,
Alan

5. LEXIS FOR BIOLOGY (10 points). *Read all of this text. Then write an appropriate word or expression for each of the 10 spaces. Look at the example in number **0**.*

The periodic table of elements

An *element* is a substance **(0) m** **MADE** of atoms that have the same number of protons. All the known elements are organised and displayed in the 'periodic table of elements'. Most of us **1)** **HAVE** seen this table hanging on the wall of the chemistry laboratory in our school or university. Today it seems banal. But when the Russian chemist Dimitri Mendeleev produced this table in 1869 it was revolutionary. The periodic table is more **2)** **THAN** just a simple list of elements; it also offers a very useful a way of categorising and sorting them.

Each row of the table is called a *period*. Moving across the table horizontally, you go from metals to nonmetals, with heavy metals in the **3)** **MIDDLE**. Each column of the table is called a *family* or a *group.* Elements within the same group have similar properties. Mendeleev showed that there is a repeating pattern – a periodicity – in these properties and that they are the building blocks of the universe. For example, each element has a number associated with it. This is the *atomic number*, **4)** **WHICH** means the number of protons in the nucleus of a particular element. So, for example, carbon has six protons in the nucleus of one atom, so its atomic number is 6.

Living things use only a few of the elements in the periodic table. The four most important elements found in organisms are hydrogen, carbon, **5)** **NITROGEN** and oxygen. Other elements that are found in small amounts in living things include sodium, **6)** **MAGNESIUM**, phosphorous, sulphur, calcium, and potassium. These elements often circulate in the body as *electrolytes*, that is, as substances that release *ions* when they break apart in **7)** **WATER**. For example, when sodium chloride (NaCI) is in the watery environment of the cell, it breaks apart into the ions Na^{+} and CI^{-}, which are then used in organs such as the heart or in cellular processes.

The periodic table that Mendeleev produced in 1869 consisted of sixty-one elements. Since then, scientists have **8) DISCOVERED** several other elements. The most recent one, element 118, was formally named *oganesson* in 2016. In modern technological societies, many elements **9) ARE** used in electronic devices. An Apple iPhone, for example, contains about seventy-five different elements that include carbon, hydrogen, silicon, copper and gold. However, certain elements that are crucial for the modern world are known as *endangered elements*. The light gas, helium, for example, which is mined from deep under the **10) GROUND** and used in MRI scanners (*apparecchi di risonanza magnetica*) in hospitals, is lost forever once it escapes into the air.