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Ferhat Abbas High School. School year: 2013/2014
Level: 2nd year Duration: 2 hours

Second term exam

PART ONE: READING (15 points)

Read the following text carefully and do the activities.

Chemical reactions happen around us all the time. Some happen all by themselves like photosynthesis, cooking food and burning fuel. A chemical reaction is a process when one or more substances are changed into other substances. How do they happen? It all can be explained by atoms.

Electrons surround the nucleus of an atom in layers called shells or orbits. The first shell, closest to the nucleus, is full with only two electrons. The second shell is full with eight electrons, and the third shell will also hold eight electrons. For the most stable atom, the outer shell needs to be full of electrons. To get a full shell, atoms will take or give up electrons to other atoms or share electrons with another atom. When this happens, a chemical reaction has taken place and a chemical bond has formed.

To better understand this, let's look at the sodium atom. Sodium has eleven electrons. Its first shell is full with two electrons, and its second shell is full with eight more electrons, making ten electrons. However, since sodium has eleven electrons, it has one all alone in the third shell. To become more stable, sodium will easily give up that one electron so it will have a full shell. The extra electron will go to another atom that needs one electron to have a full shell.

(Adapted from *http://edhelper.com*)

A. Comprehension and interpretation. (08 points)

1. Circle the letter that corresponds to the right answer. The text is:

a) narrative b) expository d) argumentative

2. Choose a title to the text. Circle the letter which corresponds to the best answer:

a) Electrons and Atoms b) How do Chemical Reactions Happen? c) Sodium Reactions.

3. Are these statements true or false? Write "T" or "F" next to the letter corresponding to the statement.

a) An atom consists of a central electron surrounded by nucleuses.

b) A chemical reaction is due to electrons mobility between atoms.

c) Taking, giving up or sharing electrons leads to new substances.

d) The sodium has eleven electrons in the third shell.

4- Answer the following questions according to the text.

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a) What is a sheil ?

b) How does a chemical reaction happen?

c) How many electrons does sodium have?

B. Text exploration. (07 points)

1. Find in the text words that are synonyms to the following:

a) encircled = ... (§2) **b)** get=..... (§2)

2- Find in the text words that are opposites to the following:

a) worse ≠..... (§3) b) empty ≠..... (§3)

3. Give the correct from of the verbs between brackets.

a) If you (mix) oxygen with hydrogen, you (get) water.

b) What (happen) to you, if you (put) sodium on the tip of your tongue?

c) Take it for granted that I (call) you, if I (fly) to Algiers tomorrow.

4. Fill in the gaps with words from the list:

kinds - mix - element - reaction

A chemical ..... can happen when you..... two or more chemical elements together. A chemical .....is made of only one kind of atom. There are more than 100 different .....of atoms. Atoms are much too small to see.

5. Classify the following words according to their syllables:

atomic - mobility - wanted - leaves

1syllable	2 syllables	3 syllables	4syllables
.....	.....	.....	.....

PART TWO: WRITTEN EXPRESSION (05 points)

Choose one of the following topics

Topic 01:

Suppose that you were in a dilemma. In no more than 12 lines, write a letter to an 'agony aunt', in which you seek help.

Use the following notes:

- Say why you are writing.
- Introduce yourself.
- Expose your problem.
- Ask for advice.

Topic 02:

Noise pollution is today considered as one the most effective and dangerous kind of pollution on human health. Write a paragraph exposing this new kind of pollution.

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