



Université IBN-Khaloudoun –Tiaret
Faculté des Sciences de la Matière
Département de chimie
Level : M2 CO

Le 15-05-2024
Durée : 1H.30'

Chargé du module : BELARBI Yasmine

ENGLISH TECHNIQUE EXAM

Activity 01: Choose the right answer from the provided choices (2.5 Points)

1. In the chloralkali process, which ion is reduced at the cathode to produce sodium hydroxide (NaOH)?
- **B) Hydroxide ion (OH⁻)**
2. Which of the following is a characteristic property of hydrochloric acid (HCl)?
- **C) Dissolves metals like zinc**
3. What does pH measure in a solution?
- **B) Concentration of hydrogen ions (H⁺)**
4. What happens to the pH of a solution when the concentration of hydrogen ions (H⁺) increases?
- **B) The pH decreases**
5. What is the color of hydrochloric acid in its pure form?
- **A) Clear and colorless**

Activity 02 Put each verb in the correct form according to the conditional type

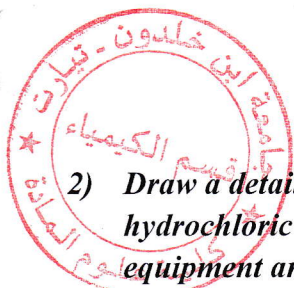
(0 or 1) :(10 Points; 1 point per each verb)

1. If you **mix** sodium chloride (NaCl) with water, it **dissolves** completely
2. If you **take** medicines, you **will get** better.
3. If we **take** drugs, we **will be** unconscious
4. If we **mix** baking soda (NaHCO₃) with vinegar, it **produces** carbon dioxide gas
5. If he **heats** iron (Fe) in the presence of oxygen, it **rusts**.

Activity 03

1) **Fill in the blanks with the right word (2.5 Points; 0,25 per each word)**

To prepare hydrochloric acid (HCl) solution in the laboratory, follow these steps. Begin by obtaining a **avolumetric flask** and ensuring it is clean and dry. Next, carefully measure and pour a **small quantity** \ 100 ml of **distilled water** into the **volumetric flask**. Then, slowly add **the HCL** to the **flask**, ensuring proper mixing to achieve a homogeneous solution. Once the **HCL** is added, fill the **flask** with **distilled water** to the 500 ml mark. Finally, the **solution** is ready



- 2) *Draw a detailed diagram illustrating the step-by-step preparation of hydrochloric acid (HCl) solution in a laboratory setting, showing the equipment and materials needed for preparing hydrochloric acid (HCl) solution.*

In this part, students are required to draw and name all the material used for this preparation and show all the steps needed to prepare the hydrochloric acid (HCl) (5 points)