

Université IBN-Khaloudoun –Tiaret

Faculté des Sciences de la Matière

Département de chimie

Level : L2 chimie

Le 16-05-2024

Durée : 1H.30'

Chargé du module : BELARBI Yasmine



### ENGLISH TECHNIQUE EXAM

**Activity 01** Say whether these statements are true or false, and correct the false ones (5 points)

1. Sodium hydroxide (NaOH) is a strong acid **False**

**Sodium hydroxide is a strong base**

2. Hydrochloric acid (HCl) is a strong acid with a pH above 7 **False**

**Hydrochloric acid (HCl) is a strong acid with a pH less than 7**

3. HCl is prepared by dissolving hydrogen chloride (HCl) gas in water **True**

4. NaOH reacts with acids to form salts and water **True**

5. HCl is a colorless liquid with a pungent odor **True**

### Activity 02

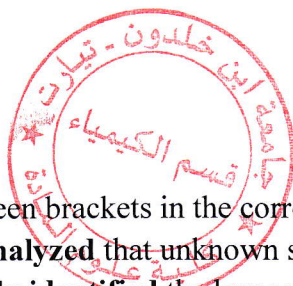
➤ List the names of the laboratory materials used to prepare the Sodium hydroxide (NaOH) (3points)

Distilled water, volumetric flask, beaker, pipette, goggles, safety gloves, NaOH, funnel, bottle wash, balance, spatula, glass watch

➤ Write a brief paragraph describing the process of preparing sodium hydroxide (NaOH), identifying the materials used and the phases involved. (4points)

To prepare a sodium hydroxide (NaOH) we begin by ensuring safety goggles and gloves to protect ourselves. Use a clean volumetric flask and place it on a stable surface. First, fill the volumetric flask halfway with distilled water using a wash bottle to ensure accurate measurement. Then, using a spatula and a balance, carefully measure out the required amount of solid sodium hydroxide (NaOH), which corresponds to a 1 M concentration (40 grams of NaOH per liter of solution). Add the measured NaOH solid to the water in the volumetric flask. After that, fill the volumetric flask with additional distilled water until it reaches the 1-liter mark, taking care not to overfill. Utilize a stirrer to mix the contents of the flask, ensuring the NaOH solid is completely dissolved and the solution is homogenous. Finally, the solution is prepared

### Activity 03



➤ Put the verb between brackets in the correct form (4 points)

1. They **have never analyzed** that unknown substance.
2. Scientist **has already identified** the key components of this reaction.
3. I **have never dissolved** sodium hydroxide in water before.
4. We **have just measured** the pH of that solution.

➤ Put each verb in the correct form according to the conditional type (0 or 1)

(4points)

1. If you **heat** ice, it **melts**.
2. If we **mix** vinegar with baking soda, it produces carbon dioxide gas
3. If you **study** regularly, your grades **will improve**
4. If he **heats** iron (Fe) in the presence of oxygen, it **rusts**.