

الإدارة المركزية للتعليم العام
مكتب تنمية مادة العلوم

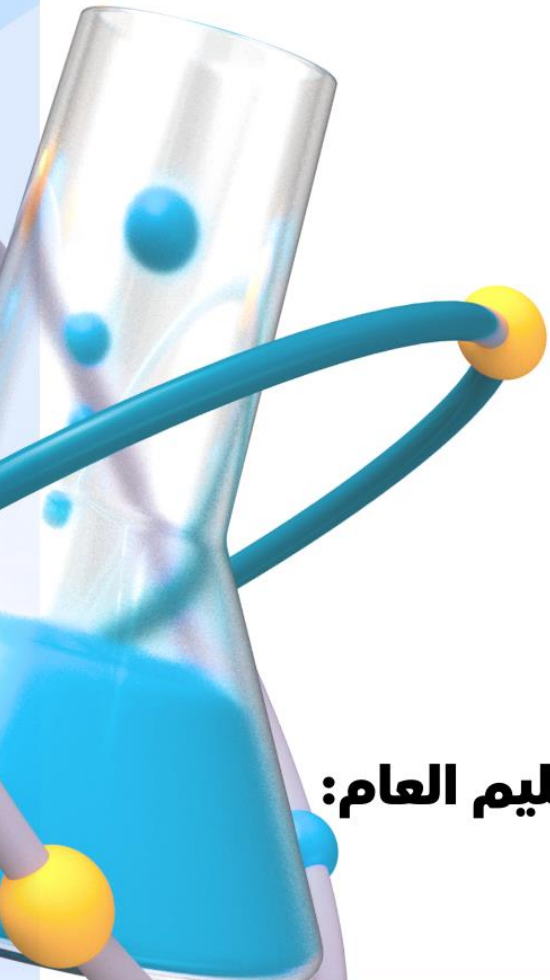


CHEMISTRY

2nd secondary

Second term

HOME PERFORMANCE



إعداد:
أ. سامح منصور
أ. عبدالله عبدالواحد
مستشار مادة العلوم:
د. عزيزة رجب خليفة
رئيس الإدارة المركزية للتعليم العام:
د. هالة عبدالسلام خفاجي

2026

week

8

Home performance (Week 8)

Q1/ choose the correct answer:-

1. Which of the following represents the electron configuration of the hydrogen ion in lithium hydride?

- (a) $1s^1, 2s^1$
- (b) $1s^2$
- (c) $1s^0$
- (d) $1s^2, 2s^1$

2-Which of the following represents the results of the electrolysis of both molten sodium and a sodium chloride solution using graphite electrodes?

	Products of electrolysis of molten (NaCl)		Products of electrolysis of (NaCl _(aq))	
	At anode	At cathode	At anode	At cathode
A	hydrogen gas evolves	Sodium metal is formed	Chlorine gas evolves	Sodium metal is formed
B	Sodium hydroxide is formed	Chlorine gas evolves	Sodium metal is formed	hydrogen gas evolves
C	Sodium metal is formed	Chlorine gas evolves	Chlorine gas evolves	Sodium hydroxide is formed
d	Chlorine gas evolves	Sodium metal is formed	Chlorine gas evolves	hydrogen gas evolves

3- In which of the following reactions the gas produced cannot be replaced by oxygen when passed over potassium superoxide in the presence of a catalyst?

- (a) Thermal decomposition of sodium bicarbonate
- (c) Reaction of sodium carbonate and hydrochloric acid
- (d) Thermal decomposition of lithium carbonate
- (d) Dissolution of lithium nitride in water

4- Which of the following salts has the highest thermal stability?

- A) Lithium carbonate
- B) Sodium nitrate
- C) Potassium carbonate
- D) Potassium nitrate



5- Which of the following refers to an alkali metal that reacts with nitrogen gas?

- (a) An element used in the manufacture of smartphone batteries
- (b) An element used in the manufacture of lamps that produce yellow light
- (c) An element 90% of whose production is used in the fertilizer industry
- (d) An element used in the manufacture of scratch-resistant glass

6- Which of the following represents the correct order of chemical processes required To obtain sodium sulfate from sodium metal?

- (a) Passing chlorine gas over sodium metal – Electrolysis of the resulting melt – Passing The resulting gas through sulphuric acid.
- (b) Reaction of sodium with oxygen gas – Dissolving the product in water – Passing CO_2 Gas through the product
- (c) Reaction of sodium with hydrogen gas – Dissolving the product in water – Passing CO_2 gas over the product
- (d) Passing chlorine gas over sodium metal – electrolysis of the resulting solution – Adding sulphuric acid

7- Water hardness can be removed by precipitating dissolved magnesium and calcium ions in the form of salts:

- a) Hydroxides
- b) Sulphates
- c) Carbonates
- d) Nitrates

8- Which of the following describes the preparation of a deliquescent substance?

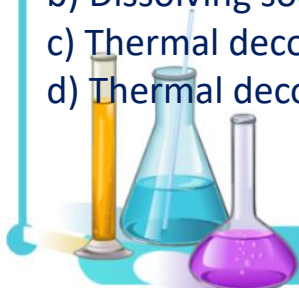
- a) Electrolysis of molten sodium chloride
- b) Reaction of sodium hydroxide with nitric acid (HNO_3)
- c) Passing carbon dioxide gas through a sodium hydroxide solution
- d) The reaction of sodium hydroxide with sulphuric acid

9- Which of the following does not represent a use of potassium metal?

- a) Fertilizer production
- b) Photoelectric cells
- c) Self-contained breathing apparatus
- d) Night vision devices

10- Which of the following produces a gas used as a reducing agent?

- a) Dissolving lithium nitride in water
- b) Dissolving sodium hydride in water
- c) Thermal decomposition of potassium nitrate
- d) Thermal decomposition of lithium carbonate



الإدارة المركزية للتعليم العام
مكتب تنمية مادة العلوم



CHEMISTRY

2nd secondary

Second term

WEEKLY ASSESSMENTS



إعداد:

أ. سامح منصور

أ. عبدالله عبدالواحد

مستشار مادة العلوم:

د. عزيزة رجب خليفة

رئيس الإدارة المركزية للتعليم العام:

د. هالة عبدالسلام خفاجي

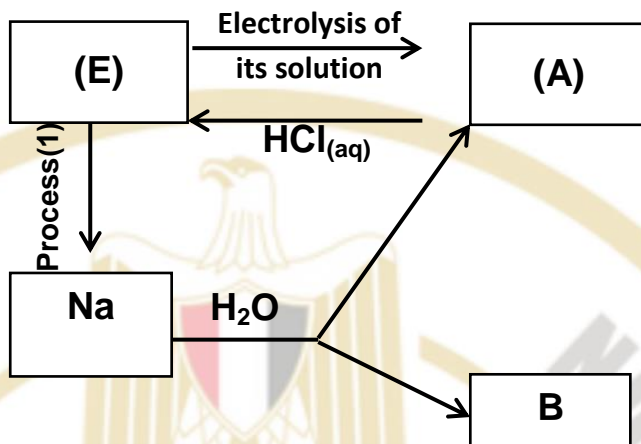
2026

week

8

A

Q1/ Study the diagram below, then answer the following questions:



1- Write the chemical formula for compound (E)

.....

2-Write the chemical formula of the compound shown in the diagram

.....

3-show by chemical equation how you can obtain (B) from sodium hydride

.....

Q2/ Choose the correct answer:

1- Which of the following is a deliquescent substance (one that absorbs water vapor and dissolves in it)?

- A) Gunpowder salt
- B) Chilean saltpeter
- C) Washing soda.
- D) Halite

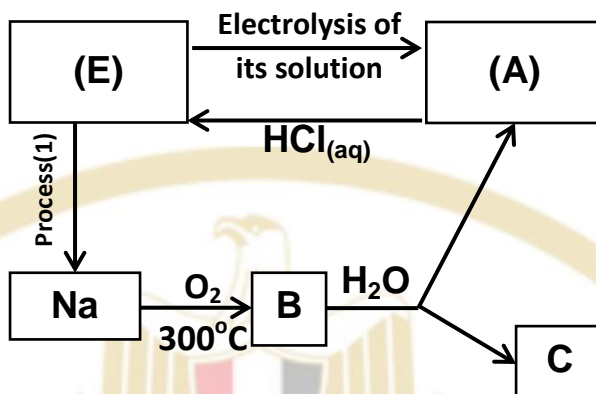
2- Which of the following substances reacts with acids and is accompanied by Effervescence (acidity Test)?

- a) Sodium hydroxide
 - b) Sodium carbonate
 - c) Sodium oxide
 - d) Lithium oxide
-
-



B

Q1/ Study the diagram below, then answer the following questions:



(1) Write the name of process (1) in industry

.....

(2) Write the chemical formula for a compound that can be used as a Strong oxidizing agent

.....

(3) Which of the substances in the diagram is used as a coolant in nuclear reactors?

.....

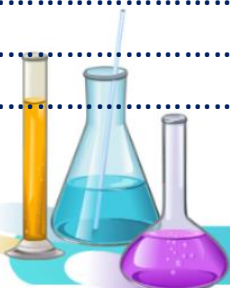
Q2/ Choose the correct answer:

1- Which of the following refers to a substance capable of absorbing water vapor And binding with it (Hygroscopic)?

- a) Sodium hydroxide
- b) Sodium nitrate
- c) Sodium carbonate
- d) Sodium chloride

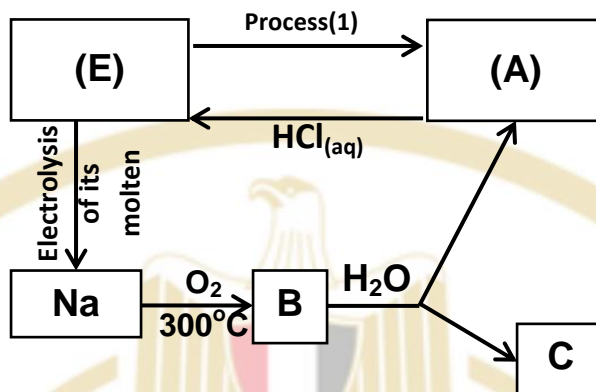
2- Which of the following metals forms alloys with aluminum that is used in the Manufacture of aircraft structures?

- a) Potassium
 - b) Rubidium
 - c) Cesium
 - d) Lithium
-
-
-
-



C

Q1/ Study the diagram below, then answer the following questions:



(1) Write the chemical formula for compound (C)

(2) Write the name of process (1)

(3) Show by chemical equation how you can obtain washing soda from compound (A)

Q2/ Choose the correct answer:

1- Which of the following is a deliquescent substance (one that absorbs water vapor and dissolves in it)?

- a) Sodium nitrate
- b) Potassium nitrate
- c) Sodium carbonate
- d) Sodium chloride

2- Which of the following metals has a halide used in night vision devices?

- a) Potassium
- b) Rubidium
- c) Cesium
- d) Lithium

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

