

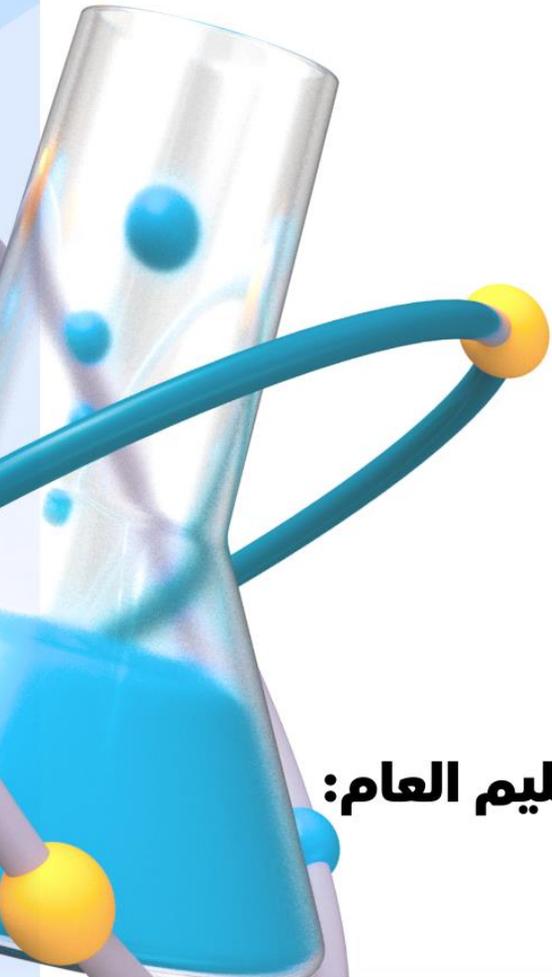
الإدارة المركزية للتعليم العام  
مكتب تنمية مادة العلوم



# CHEMISTRY

2nd secondary  
Second term

# HOME PERFORMANCE



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د. هالة عبدالسلام خفاجي

2026

week

1

# Home performance (Week 1)

## Q1/ choose the correct answer:-

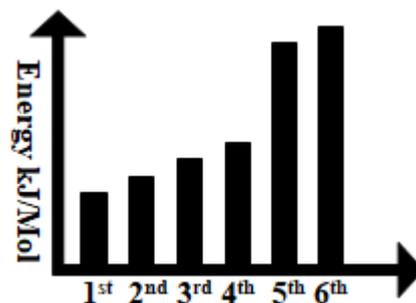
**1- Which of the following represents the combination of two atoms of an element whose atomic number (8)?**

- (a) Each atom share by one electron
- (b) Each atom share by two electrons
- (C) Ionic bond is formed
- (d) Physical bond is formed

**2- Noble gases molecules consist of .....**

- (a) One atom
- (b) Two atoms
- (C) Three atoms
- (d) Four atoms

**3-The opposite graphical figure shows the successive ionization potentials of an element (X), so the Lewis Dot – representation symbol of the element (Y) that Proceeds (X) in the same group are .....**



- (a) (b) (c) (d)

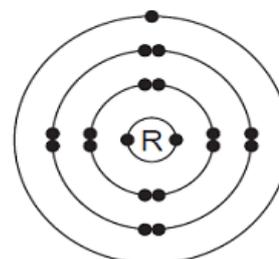
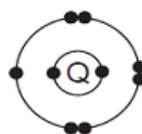
**4-Which of the following molecules contains the largest number of lone pairs of electrons?**

- (a) MgO
- (b) NaCl
- (c) MgCl<sub>2</sub>
- (d) Na<sub>2</sub>O

**5- The electronic structures of atoms Q and R are shown.**

**Q and R form an ionic compound, what is the formula of the compound?**

- (a) QR<sub>7</sub>
- (b) Q<sub>2</sub>R<sub>4</sub>
- (C) QR
- (d) Q<sub>7</sub>R



**6- A nonmetal (X) reacts with a metal (M) to give the formula  $M_2X$ . Which pairing below is most like elements represented by M and X?**

- (a)  ${}_{20}\text{Ca}$  and  ${}_{7}\text{N}$
- (b)  ${}_{7}\text{Li}$  and  ${}_{16}\text{S}$
- (c)  ${}_{14}\text{Si}$  and  ${}_{8}\text{O}$
- (d)  ${}_{37}\text{Rb}$  and  ${}_{9}\text{F}$

**7-Which of the following does not conduct electricity?**

- (a)  $\text{NaCl}_{(\text{aq})}$
- (b)  $\text{KCl}_{(\text{l})}$
- (c)  $\text{MgCl}_{2(\text{s})}$
- (d)  $\text{LiF}_{(\text{aq})}$

**8- Which of the following choices represents groups whose elements together form a strong ionic bond?**

- (A) 1A&2A
- (B) 6A&7A
- (C) 2A&4A
- (D) 1A & 7A

**9- Which of the following equations expresses an instantaneous reaction?**

- (a)  $\text{NaCl}_{(\text{aq})} + \text{AgNO}_{3(\text{aq})} \rightarrow \text{NaNO}_{3(\text{aq})} + \text{AgCl}_{(\text{s})}$
- (b)  $\text{Zn}_{(\text{s})} + \text{H}_2\text{SO}_{4(\text{aq})} \rightarrow \text{ZnSO}_{4(\text{aq})} + \text{H}_2(\text{g})$
- (c)  $\text{N}_2(\text{g}) + 3\text{H}_2(\text{g}) \rightarrow 2\text{NH}_3(\text{g})$
- (d)  $\text{Fe}_{(\text{s})} + 2\text{HCl}_{(\text{aq})} \rightarrow \text{FeCl}_{2(\text{aq})} + \text{H}_2(\text{g})$

**10-Metals tend to reach the electronic configuration of .....**

- (a) The inert gas that follows it in the periodic table
- (b) The inert gas that precedes it in the periodic table
- (c) The metal that is less chemically active than it
- (d) The non-metal that is more chemically active than it



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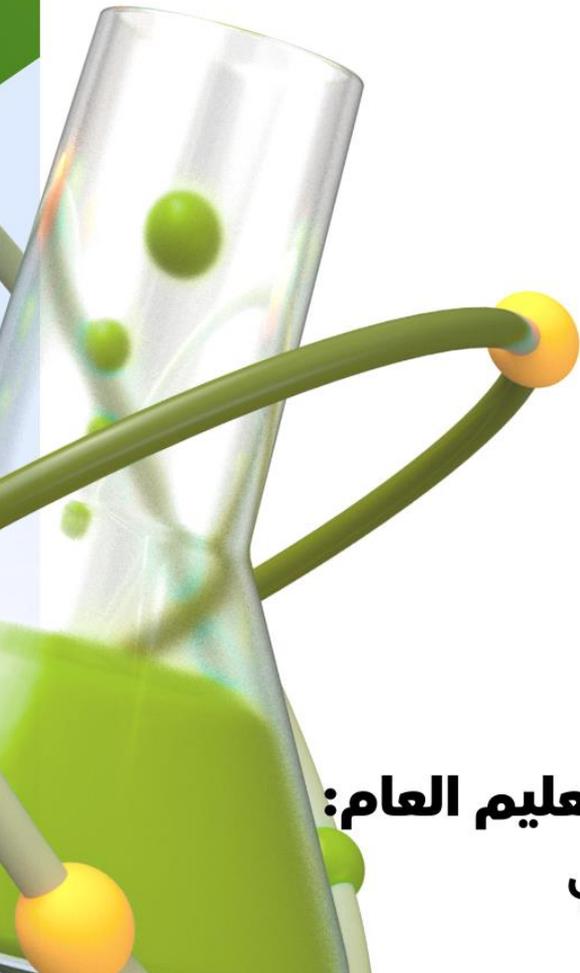


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## WEEKLY ASSESSMENTS



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## Weekly assessment (Week-1)

The element	Na	Al	Cl	Mg	K	F	O	P	H	S	N
Electronegativity	0.9	1.5	3	1.2	0.8	4	3.5	2.1	2.1	2.5	3
Atomic number	11	13	17	12	19	9	8	15	1	16	7

A

**Q1/ State the scientific reason:**

- 1- Molten and solutions of ionic compounds conduct electricity.
- 2- Metals and non-metals are chemically active, while noble gases are chemically inert.

**Q2/ using the following table, write the chemical formula for an ionic compound:**

element	Al	Cl	Mg
Electronegativity	1.5	3	1.2

**Q3/ Choose the correct answer:**

**1- Which of the following compounds has the lowest ionic character?**

- (A) Sodium chloride
- (B) Magnesium chloride
- (C) Potassium chloride
- (D) Aluminum chloride

**2- Which of the following choices represents a physical bond?**

- (A) Ionic bond
- (B) Covalent bond
- (C) Metallic bond
- (D) Coordination bond

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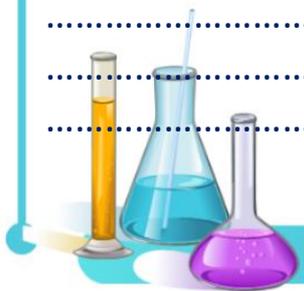
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**B**

**Q1/ State the scientific reason:**

- 1- Ionic compounds do not conduct electricity in their solid state.
- 2- Electronegativity plays an important role in determining the type of bond.

**Q2/ using the following table, write the chemical formula for covalent compound:**

element	Al	Cl	Mg
Electronegativity	1.5	3	1.2

**Q3/ Choose the correct answer:**

**1- Which of the following compounds has the highest ionic character?**

- (A) Sodium chloride (B) Magnesium chloride  
(C) Potassium chloride (D) Aluminum chloride

**2- Which of the following choices represents a chemical bond?**

- (a) Van der Waals bonds (b) Hydrogen bonds  
(c) Metallic bonds (d) Covalent bonds

**C**

**Q1/ State the scientific reason:**

- 1- The ionic character in the compound KCl is higher than in the compound LiCl.
- 2- Ionic compounds are characterized by high melting and boiling points.

**Q2/ using the following table, write the chemical formula for the compound has a higher ionic property:**

element	H	Cl	Na
Electronegativity	2.1	3	0.9

**Q3/ Choose the correct answer:**

**1-Which of the following choices does not represent a chemical bond?**

- (A) Ionic bond (B) Covalent bond  
(C) Hydrogen bond (D) Coordination bond

**2-Which of the following compounds does not represent an ionic compound?**

- (A) Lithium chloride (B) Magnesium chloride  
(C) Potassium hydride (D) Aluminum chloride

