عرض المعلومات المساعدة عرض التغذية الراجعة عرض جميع الأسئلة

السؤال 1

Select the best answer.

Arrange the following atoms in order of increasing number of valence electrons: phosphorus, oxygen, silicon, fluorine.

Element	Atomic Number
phosphorus	15
oxygen	8
silicon	14
fluorine	9

- phosphorus, oxygen, silicon, fluorine
- silicon, phosphorus, oxygen, fluorine ✓
- silicon, oxygen, fluorine, phosphorus
- phosphorus, oxygen, fluorine, silicon

السؤال 2

Select the correct answer.

Calcium is an alkaline-earth metal. It belongs to group 2 of the periodic table.
How many valence electrons does it have?

- [x] 2
- [ ] 3
- [ ] 1
- [ ] 4

السؤال 3

Select the correct answer.

What is the highest energy level occupied by electrons when phosphorus is in its ground state?

- [ ] $n = 2$
- [x] $n = 3$
- [ ] $n = 4$

$n = 4$

$n = 1$

السؤال 4

Select the correct answer.

An element belongs to group 15 of the periodic table. It has 5 valence electrons in the 3s and 3p orbitals.
How will you correctly arrange the electrons in its 3s and 3p orbitals?

$3s^1\ 3p^4$

$3s^0\ 3p^5$

$3s^2\ 3p^3$ ✓

$3s^3\ 3p^2$

السؤال 5

Select the best answer.

The electron configuration notation for nitrogen (N) is: $1s^2 2s^2 2p^3$.
The outermost principal energy level is *n=2.*
Which of these represents the correct electron-dot structure and number of valence electrons for nitrogen?



6 valence electrons



8 valence electrons



7 valence electrons

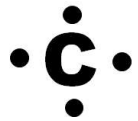


5 valence electrons

السؤال 6

Drag and drop the best term to complete the table.

Match each electron-dot diagram with the correct electron configuration notation.

	$1s^2 2s^2 2p^2$ ✓	
	$1s^2 2s^2 2p^6 3s^2 3p^6 4s^2$ ✓	

$1s^2\ 2s^1\ 2p^3$ $1s^2\ 2s^2\ 2p^6$ $1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^5\ 4s^3$

$1s^2\ 2s^2\ 2p^6\ 3s^2\ 3p^6\ 4s^1$

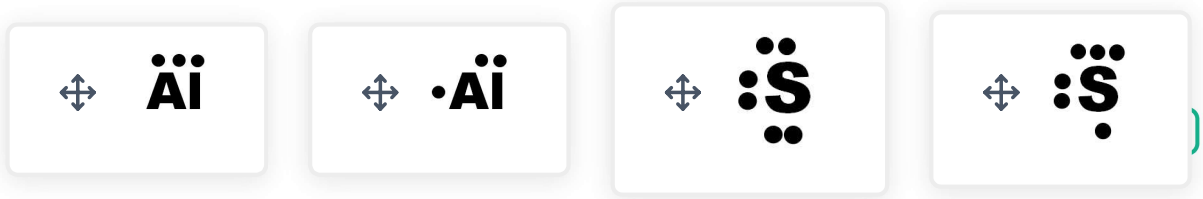
السؤال 7

Drag and drop the correct answers onto the image.

Match the correct electron-dot structure to each atom.

aluminium: atomic number 13

sulfur: atomic number 16



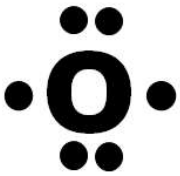
السؤال 8

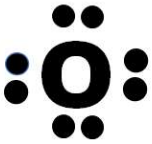
Select the correct answer.

Which is the correct electron-dot structure for an atom of oxygen?









السؤال 9

Select the correct answer.

Given the following information, identify the element.

- electron configuration notation: $1s^1$

Potassium (K)
atomic number = 19

hydrogen (H)
atomic number = 1

sodium (Na)
atomic number = 11

lithium (Li)
atomic number = 3

السؤال 10

Select the correct answers from the drop-down menus.

The ground state electron configuration of chlorine (Cl) is: $1s^2 2s^2 2p^6 3s^2 3p^5$

Chlorine has 7 ✓ valence electrons, located in the 3s and 3p ✓ sublevels of principal energy level, $n = 3$ ✓.

السؤال 11

Fill in the blank with the correct answer from the word bank.

Word bank			
3	15	5	4

There are 5 ✓ valence electrons in a phosphorus atom.

السؤال 12

Select the correct answer.

The electron configuration for magnesium (Mg) is: $1s^2\ 2s^2\ 2p^6\ 3s^2$.
The highest principal energy level is *n=3.*
The electron-dot structure for Mg is: _____



2 valence electrons



3 valence electrons



5 valence electrons



4 valence electrons

السؤال 13

Select the correct answer.

The halogens are found in Group 17 of the periodic table. These elements all have _____ valence electrons.

- 6
- 7 ✓
- 9
- 8

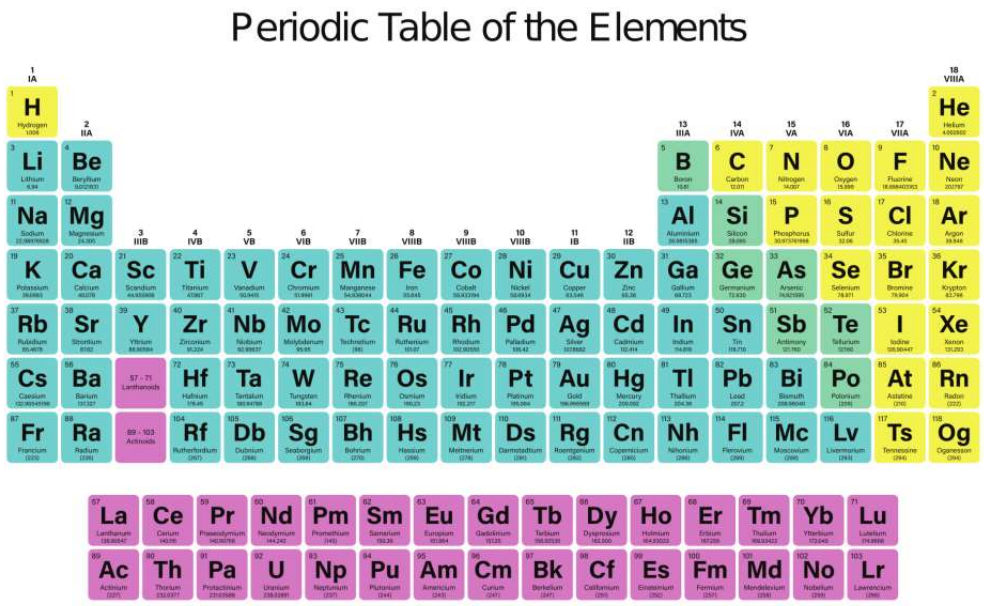
السؤال 14

Select the correct answer.

The following elements belong to the same group on the periodic table. How many valence electrons do they have?

- Be

- Mg
- Ca



4

5

2

6