

## Chemistry (New Book) - 9th Class Chemistry English Medium Chapter 3 Preparation

Q1. Define Periodicity.

**Ans 1:** Properties of elements were found repeating after regular after regular intervals in periodic tabel it is the periodicity.

Q2. Describe Ionization energy.

**Ans 1:** The ionization energy is the amount of energy required to remove the most loosely bound electron from the valence shell of an isolated gaseous atom.

Q3. Define Atomic Radius.

**Ans 1:** "The half of the distance between the nuclei of the two bonded atoms referred as atomic radius". Example: Distance between the nuclei of two carbon atoms in elemental form is 154 pm its half is 77 pm. Which is atomic radius of Carbon.

Q4. Define groups?

**Ans 1:** Seven horizontal rows present in periodic table are called periods. Numbered from 1 to 7.

Q5. How many elements are there in 4period?

**Ans 1:** The fourth period contains 18 elements, beginning with potassium and ending with krypton.

Q6. Define electron affinity with an example.

**Ans 1:** Electron affinity is defined as the amount of energy released when an electron is added in the outermost shell of an isolated gaseous atom.

Example:

The first electron affinity of chlorine is  $-349\text{kJmole}^{-2}$

Q7. Define Modern Periodic law.

**Ans 1:** In 1913 H.Moseley give modern periodic law "Properties of elements are periodic function of their atomic number".

Q8. Write down drawbacks of Mendeleev's periodic table?

**Ans 1:** 1-In some cases element of higheratomic masses are placed before those having lower atomic masses.

2- No attempt has been made to place metals and non-metals separately in it.

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Q9. What are the elements arranged in group 3 to 12 called?

**Ans 1:** Elements of group 3 to 12 in a modern periodic table are called d-block elements

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Q10. Why Cesium requires little energy to release its one electron present in its outermost shell?

**Ans 1:** Cesium is the 2nd last element of 1st group. It has large size and less force of attraction between the nucleus and valence electron, as a result small amount of energy is required to remove electron from the valence shell

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