

## QUIZEN – Atomic structure(11C02)

<b>Learning Level 1</b>	<b>Learning Level 2</b>	<b>Learning Level 3</b>
Q - Remembering (knowledge-based questions) U - Understanding (comprehension-based questions)	I - Applying (application-based questions) Z - Analyzing (analysis-based questions)	E - Evaluating (evaluation-based questions) N - Creating (creation-based questions)

### Learning Level 1

1. Define atomic number and mass number.
2. State the location and charge of protons, neutrons, and electrons in an atom.
3. What is the significance of the Bohr's model of the atom?
4. Explain the concept of isotopes with an example.
5. Name two fundamental particles that make up the nucleus of an atom.

### Learning Level 2

6. An element has an atomic number of 8. How many protons, electrons, and neutrons does it have?
7. Write the electronic configuration for the element with atomic number 16.
8. Calculate the average atomic mass of an element with two isotopes: Isotope A (mass = 10 amu, abundance = 75%) and Isotope B (mass = 12 amu, abundance = 25%).
9. Compare the atomic and mass numbers of two isotopes of an element. What remains the same and what changes?
10. An atom has 20 protons and 22 neutrons. Determine its atomic number, mass number, and number of electrons.

### Learning Level 3

11. Compare the Rutherford and Bohr models of the atom, highlighting their similarities and differences.
12. Evaluate the significance of electron configuration in understanding the chemical behavior of elements.
13. Create a diagram illustrating the electronic configuration of nitrogen (atomic number 7) using the orbital notation.
14. Argon is a noble gas with the atomic number 18. Explain why it is chemically stable.
15. Design an experiment to demonstrate the presence of isotopes in a given element.

