



Brain International School

Vikas Puri, New Delhi

ASSIGNMENT NO.6

SUBJECT: CHEMISTRY

CLASS-IX

DECEMBER'2025

CHAPTER 4 : STRUCTURE OF THE ATOM

1. MULTIPLE CHOICE QUESTIONS :

1. An atom with atomic number 9 and mass number 19 will have the following constituents :

- (a) 9p, 9n, 9e
- (b) 9p, 10n, 9e
- (c) 10p, 9n, 9e
- (d) 9p, 9n, 10e

2. An atom with three protons and four neutrons will have a valency of:

- (a) 3
- (b) 7
- (c) 1
- (d) 4

3. The nucleus of hydrogen atom is known as:

- (a) proton
- (b) positron
- (c) nucleon
- (d) neutrino

2. This question consists of two statements-ASSERTION (A) and REASON(R), answer the question selecting the appropriate option given below

- a) Both A and R are true and R is the correct explanation for A
- b) Both A and R are true and R is not the correct explanation for A
- c) A is true but R is false
- d) A is false but R is true

(a) **Assertion** : Mass number of an element is always an integer

Reason : Mass number is the sum of number of protons and neutrons in an atom, both of which are whole numbers.

(b) **Assertion** : The size of the nucleus is very small as compared to the size of the atom.

Reason : The electrons revolve around the nucleus of the atom .

3. Answer the following questions :

1. Give a reason to explain why :

(i) isotopes of an element show identical chemical properties ?

(ii) The atomic masses of elements are in fractions.

(iii) Atoms combine with other atoms .

2.(i) Draw the sketch of Bohr's model of an atom .

(ii) Draw the sketch of Thomson's model of an atom .

(iii) Draw the sketch of Rutherford's alpha particle scattering experiment .

3. Explain Bohr -Bury scheme .

4. What are isotopes? Write their applications .