

Science

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(Chapter – 4) (Structure Of The Atom)

(Class – IX)

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Question 1:

Name the three sub-atomic particles of an atom.

Answer 1:

The three sub-atomic particles of an atom are:

- (i) Protons
- (ii) Electrons, and
- (iii) Neutrons

Question 2:

Helium atom has an atomic mass of 4 u and two protons in its nucleus. How many neutrons does it have?

Answer 2:

Helium atom has two neutrons. The mass of an atom is the sum of the masses of protons and neutrons present in its nucleus.

Since helium atom has two protons, mass contributed by the two protons is $(2 \times 1) \text{ u} = 2 \text{ u}$. Then, the remaining mass $(4 - 2) \text{ u} = 2 \text{ u}$ is contributed by $2\text{u} / 1\text{u} = 2$ neutrons.