

Exemplar Problem 5 :

Q) An atom having atomic mass number 13 and has 7 neutrons. What is the atomic number of the atom?

Soln: Given, Atomic mass = 13,  $n = 7$

We know that, Atomic mass  
= no. of protons +  $e^-$ .

$$\text{So, } A = n + p = 13.$$

$$\begin{aligned} \rightarrow \text{Number of protons} &= A - n \\ &= 13 - 7 = 6 \end{aligned}$$

Also, Number of Protons = Atomic number = Z

$$\text{Hence } Z = 6$$

So, it must be isotope of Carbon.

