



ATOMIC STRUCTURE AND ELECTRONIC CONFIGURATION (Lecture 16)



DR. ANAND MOHAN JHA
ASSISTANT PROFESSOR (GUEST)
DEPARTMENT OF CHEMISTRY
M. L. T. COLLEGE, SAHARSA
(B. N. MANDAL UNIVERSITY, MADHEPURA)



ATOMIC STRUCTURE AND ELECTRONIC CONFIGURATION

Bohr's Atom

electrons in orbits



ATOMIC STRUCTURE

Particle	Charge	Mass
proton	+ ve charge	1
neutron	No charge	1
electron	-ve charge	nil

ATOMIC STRUCTURE

Electrons are arranged in **Energy Levels** or **Shells** around the nucleus of an atom.

- first shell → a maximum of **2** electrons
- second shell → a maximum of **8** electrons
- third shell → a maximum of **8** electrons

ATOMIC STRUCTURE

There are two ways to represent the atomic structure of an element or compound;

1. Electronic Configuration
2. Dot & Cross Diagrams

ELECTRONIC CONFIGURATION

With electronic configuration elements are represented **numerically** by the number of electrons in their shells and number of shells. For example;

Nitrogen → configuration = 2 , 5

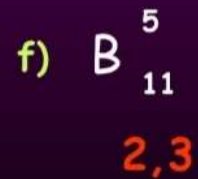
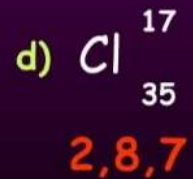
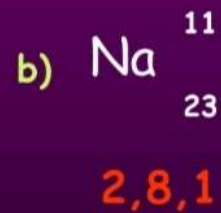
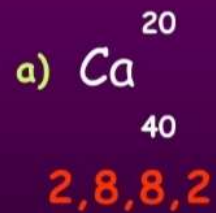
2 in 1st shell

5 in 2nd shell



ELECTRONIC CONFIGURATION

Write the electronic configuration for the following elements;



Thank You