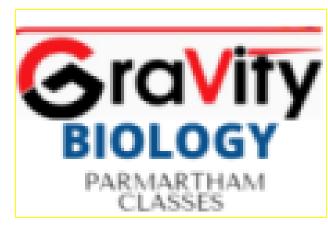
CARBON AND ITS COMPOUNDS

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CARBON AND ITS COMPOUNDS

Atomic number-6

- Chemical nature of element depend on valence electron.
- Carbon either loose 4 electron or gain 4electron to form compound.
- If carbon loose four electron, it required large amount of energy and six proton hold only two electron.
- If carbon gain 4 electron it is difficult to hold 10 electron by six proton only.
- To overcome this problem carbon neither lose nor gain, but it sharing the electron to get stable configuration.

VERSATILE NATURE OF CARBON

 Carbon form large number of compounds than other element because have unique properties---

- 1. Catenasation (self linkage)-it form long chain of carbon atom.
- 2.Formation of multiple bond- due to small size of carbon atom have ability to form single, double or triple bond to other carbon.
- 3. Covalency-form covalent bond.

These properties separate carbon compound from other element as organic compound.

COVALENT BOND

<u>A</u> bond which formed by the sharing of electron is called covalent bond and such compound is covalent compound.

TYPES OF COVALENT BOND

I.Single covalent bond- A bond formed by sharing of one electron.

H x x H

H- H

Electronic dot formula

Structural formula

molecular formula

Double covalent bond- sharing of two electron (total shared electron is 4)

O O

O=O

O2

3 TRIPLE COVALENT BOND- SHARING OF THREE ELECTRON

N N N = N N_2 ELECTRONIC DOT FORMULA OR LEWIS Show the valence electron during the sharing of electron