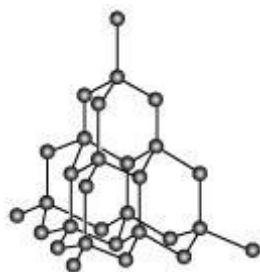
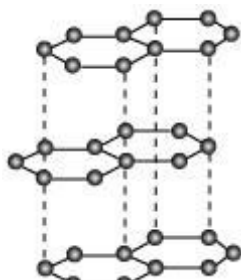


# 11. p-Block elements

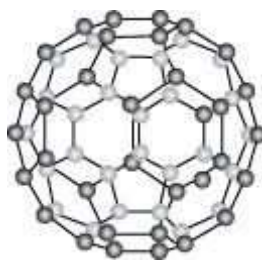
- Allotropes of Carbon
  - Allotropes have different appearances and physical properties, but chemically they are the same.
  - There are three allotropes of carbon: diamond, graphite, and buckminsterfullerene.



Diamond



Graphite



Buckminsterfullerene

Amorphous Solid:

- An amorphous solid is a non-crystalline solid with no well-defined ordered structure.
- Amorphous forms of carbon are: Charcoal, Lampblack or soot; Coal; Coke

## Catenation

- Catenation is the ability of an element to combine with itself through covalent bonds.
- Carbon shows extensive catenation, giving rise to large number of compounds.
- It can form strong single, double, and triple bonds with other atoms of carbons. Carbon can combine with itself to form chain, branched, and ring structures.