

## Some basic chemistry

1. The electronic structure of an atom describes how its electrons are arranged according to their:
  - ☐ energy
  - ☐ mass
  - ☐ size
  - ☐ charge
2. All carbon atoms have:
  - ☐ one more neutron than protons
  - ☐ the same mass
  - ☐ identical nuclei
  - ☐ the same number of protons
3. The most abundant (% by mass) element in the human body is:
  - ☐ nitrogen
  - ☐ oxygen
  - ☐ hydrogen
  - ☐ carbon
4. Nitrogen atoms can form:
  - ☐ 3 bonds
  - ☐ 4 bonds
  - ☐ 1 bond
  - ☐ 2 bonds
5. The empirical formula of a compound shows:
  - ☐ the shape of a molecule of the compound
  - ☐ how the atoms in a molecule of the compound are bonded to one another
  - ☐ the ratio of atoms in a molecule of the compound
  - ☐ how many atoms there are in a molecule of the compound
6. Potassium atoms have the electron arrangement 2,8,8,1. They combine with chlorine atoms to make the ionic compound potassium chloride, KCl. How many electrons are in a potassium ion?
  - ☐ 21
  - ☐ 20
  - ☐ 19
  - ☐ 18
7. How many covalent bonds are there in each molecule of ethane?
  - ☐ 7
  - ☐ 6
  - ☐ 5
  - ☐ 4
8. The spatial arrangement of atoms in a molecule are shown by a compound's
  - ☐ structural formula
  - ☐ molecular formula
  - ☐ 3-D displayed formula
  - ☐ empirical formula