

## Science meets Dharma - Chemistry

Name:..... Date: 30.4.2005

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- 1 The brownian motion is the...
  - ☐ movement of the protons only.
  - ☐ movement of the molecules only.
  - ☐ movement of the electrons only.
- 2 How many neutrons do we find in an iodine atom?
- 3 Name the experiment to show that the atoms are nearly empty.
- 4 How can we prove the different size of water and alcohol molecules? Describe the experiment!
- 5 The mass number of astatine is 210. This means there are
  - ☐ 210 protons?
  - ☐ 210 electrons?
  - ☐ 210 protons and neutrons?
- 6 How many orbits has:
  - helium?
  - oxygen?
  - sodium?
  - calcium?
- 7 Draw the molecules of:
  - HCN
  - O<sub>2</sub>

8 Draw the anions or cations of the given elements:

Cl

magnesium

Li

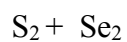
sulphur

(Draw all the orbits)

9 Ionic equation for:



10 Complete the chemical reactions for the following molecules:



11 Is the number of  $\text{H}_2$  in 1 m<sup>3</sup>

☐ bigger than in 1 m<sup>3</sup>  $\text{O}_2$ ?

☐ as big as 1 m<sup>3</sup>  $\text{O}_2$ ?

☐ smaller than 1 m<sup>3</sup>  $\text{O}_2$ ?

12 Explain the difference between compound and mixture.