

Year 12 Chemistry
Quick Quiz: Elemental Chemistry

1. Write the electron configuration for the following:
(a) strontium



- (b) Fe^{2+}



2. What is the name given to the Group I elements?

Alkali metals

3. Write the charge of the monatomic ion for the following:

- (a) carbon



- (b) phosphorus



- (c) oxygen



4. Write the covalences for the following elements:

- (a) N

3, 5

- (b) sulfur

2, 4, 6

5. For the following elements, state whether the electronegativity is high, intermediate or low, and write an equation (if it reacts) for the reaction of the given oxide with water.

- (a) Potassium (use oxide K_2O)

low



- (b) Be (use oxide BeO)

intermediate



6. For the following molecules, write the oxidation state of each element:

- (a) SO_3

S: +6 O: -2

- (c) H_2O_2

H: +1 O: -1

- (b) HCO_3^-

H: +1 C: +4 O: -2

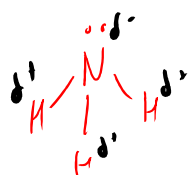
- (d) $Be_3Al_2(SiO_3)_6$

Be: +2 Al: +3 Si: +4 O: -2

+6 +6 -12

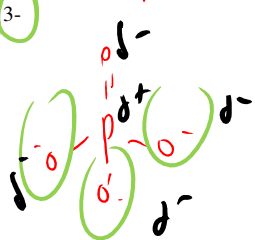
7. Draw the following molecules. Include bond and molecular polarity. Name the shape.

- (a) NH_3



trigonal pyramidal

- (b) PO_4^{3-}



no molecular polarity

tetrahedral

