**REDOX REACTIONS and EQUATIONS**

For each of the following reactions, after noting the observations,

(i) identify products and

(ii) write balanced redox equations

1. MnO41- + H2O2 🡪

2. acidified MnO41- + H2O2 🡪

3. acidified MnO41- + Fe2+ 🡪

4. Cr2O72- + H2O2 🡪

5. acidified Cr2O72- + H2O2 🡪

6. acidified Cr2O72- + Fe2+ 🡪

**HALOGEN DISPLACEMENT REACTIONS (demo)**

Bromine water formula: ………………..

Bromine water colour (aqueous) ………………..

Bromine water colour (organic) ……………….. (acts like an indicator)

Colour of chlorine (Cl2) in organic liquid: very pale green

Colour of iodine (I2) in organic liquid: bright pink

Record the following for the two demonstrations: colour of aqueous solution, and

colour of organic (indicator) solution,

i.e. DID A CHEMICAL REACTION OCCUR?

If a chemical reaction DID occur (i) write a balanced chemical equation, and

(ii) rank the halogens in order from most reactive to least reactive.

1. Br2 (aq) + Cl1- (aq) 🡪

2. Br2 (aq) + I1- (aq) 🡪

Write equations (if a reaction occurs) for the following:

(1) chlorine water + potassium iodide solution

(2) iodine water + potassium bromide solution

(3) fluorine water + potassium chloride solution

(4) chlorine water + potassium bromide solution