**Homework #13 Chemistry 1114 due Wednesday 25 Oct 2017 15 pts**

**Your name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**What is the acid (A), base (B) conjugate base (CB) and conjugate acid (CA)**

**in the reactions below: (1 pt each/2 pts total)**

**A B CB CA**

**HSO4- + HSO3 - 🡪 SO42- + H2SO3**

**B A CA CB**

**HTeO3- + HPO42- 🡪 H2TeO3 + PO43-**

**What are the oxidation numbers for the elements in the compounds listed below:**

**HBr H\_+1\_\_\_ Br -1\_\_\_\_ 1 pt**

**CO2 C\_+4\_\_ O\_\_-2\_\_\_ 1 pt**

**N2 N\_0\_\_\_\_ 1 pt**

**H2SO4  H\_+1\_\_ S\_\_\_+6\_\_ O\_\_-2\_\_\_ 2 pts**

**What are the oxidation numbers for all the elements in the reaction: 3 pts**

**CuSO4 + Mgo 🡪 Cuo + MgSO4**

**\_2 \_6 \_-2 \_0\_ \_0\_\_ \_2+ +6\_ -2\_**

**What are the oxidation numbers for all the elements in the reaction: 3 pts**

**CH4 + 2O2 🡪 CO2 + 2H2O**

**\_-4 \_+1\_ \_\_0\_ +4 -2 \_+1\_ \_-2\_\_**

**What element is oxidized in the last reaction? \_\_\_\_C\_\_\_\_\_\_ 1 pt**

**What species is reduced in the last reaction ? \_\_\_\_O\_\_\_\_\_\_ 1 pt**