1. Balance the following reaction and determine if it is an oxidation or reduction event.



- 2. For the reaction A $\rightarrow$ B,  $\Delta G = 5$  kcal/mole and  $\Delta G^{\circ} = -4.9$  kcal/mole at 310 K.
  - a. Check all that apply to  $A \rightarrow B$ :
    - \_\_\_\_ unfavorable
    - \_\_\_\_ favorable
    - \_\_\_\_ spontaneous
    - \_\_\_\_ non-spontaneous
    - $\underline{\hspace{1cm}} [B]_{eq} < [A]_{eq}$
    - $\underline{\qquad} [B]_{eq} > [A]_{eq}$

    - [B] < [A][B] > [A]
  - b. Determine relative concentrations of products and reactants:

$$[B] = (?)[A]$$