Quiz #2

1) Give the pKa for the most acidic proton in each of the following molecules (6 pts).

\[
\begin{align*}
\text{Compound 1} & \quad \text{Compound 2} & \quad \text{Compound 3}
\end{align*}
\]

2) Please provide the detailed electron pushing mechanism of the following reaction, including Initiation, Propagation and Termination (5 pts).

\[
\text{Initiation: } \quad \text{Propagation: } \quad \text{Termination: }
\]

3) a) Rank the acidity of the labeled C-H bonds of the following compound (2 pts).

\[
\begin{align*}
a & \quad b & \quad c
\end{align*}
\]

b) Rank the acidity of the following compounds (3 pts).

\[
\begin{align*}
a & \quad b & \quad c & \quad d
\end{align*}
\]

4) Identify the following groups as EDG or EWG (4 pts).

\[
\begin{align*}
\text{Group 1} & \quad \text{Group 2} & \quad \text{Group 3} & \quad \text{Group 4}
\end{align*}
\]