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**Prelab Assignment: Electrical Conductivity of Aqueous Solutions**

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- 1) Classify each of the following as **non-ionized, partially-ionized, or ionized**.

Write each compound as it exists in aqueous solution e.g.  $\text{NaCl (aq)} \rightarrow \text{Na}^+ \text{(aq)} + \text{Cl}^- \text{(aq)}$

$\text{HCl (aq)}$  – a strong acid

$\text{Ca(OH)}_2 \text{(aq)}$  – a strong base

$\text{HC}_2\text{H}_3\text{O}_2 \text{(aq)}$  – a weak acid

$\text{Ba(OH)}_2 \text{(aq)}$  – a weak base

- 2) In the virtual experiment, how will you determine if a compound is a strong electrolyte, weak electrolyte, or non-electrolyte?

- 3) Complete the following table:

<b>Observed Light Intensity (High, Med, None)</b>	<b>Conductivity (High, Low, or None)</b>	<b>Solution Type (Strong, Weak, or Non-electrolyte)</b>	<b>Ionized? (Fully, Partially, or Not ionized)</b>
High			
Medium			
None			

- 4) Would you expect an aqueous ethanol solution to conduct electricity? Why or why not?