PLEASE ANSWER ALL POSTLAB QUESTIONS DIRECTLY INTO YOUR LAB NOTEBOOK

1.) Which criteria did you use in this lab activity to determine whether a substance was a:
   a) strong electrolyte?
   b) weak electrolyte?
   c) nonelectrolyte?

2.) Why is it necessary to use deionized water when testing the conductivity of aqueous solutions?

3.) Aqueous ammonia, NH₃(aq), and acetic acid, HC₂H₃O₂(aq), solutions of equal concentrations, conduct electric current equally well (that is, rather poorly). Explain why the addition of one solution to the other results in a substantial increase in electrical conductivity. Explain AND use chemical equations to make your point.

4.) Ammonium sulfate and barium hydroxide solutions are each very good conductors. However, when equal volumes of solutions of equal concentrations are mixed, a dramatic decrease in conductivity is observed. Explain AND use chemical equations to make your point.

5) Ordinary tap water has relatively low conductivity. Deionized water has even lower conductivity but isn’t considered to be safe to drink for large systems. What are at least two health issues that are helped that result in water having specific materials present that result in greater conductivity?