**Spectrophotometric Analysis: The Breathalyzer© Reaction**

**50 Marks Total**

**This is a formal lab report and must follow the guidelines given in Appendix A of the manual.**

**Introduction: *5 marks***

**Observations: *4 marks***

**Results and Calculations:**

* **Balanced reaction equation**: ***4 marks***
* **Beer’s law plot: *5 marks***
* **Determinination of % ethanol in diluted sample: *2 marks***
* **Calculation of % ethanol in undiluted wine: *2 marks***
* **Accuracy: *3 marks***

**Questions:**

* **1. Why dilute wine sample: *3 marks***
* **2. What colour would you solution be if ethanol was in excess? Why? *2 marks***
* **3. Possible factors to consider when determining which ion to detect: *4 marks***

**Discussion: *6 marks***

**Conclusion: 4 *marks***

**References: *0 marks*, but if a source is used and not properly cited and referenced, *-1***

**Procedure Summary: *3 marks***

**Clarity and Understanding: *3 marks***