Format for the Report on the Isolation and Identification of Unknowns

The final notebook chapter in MMG-302 is a typed report on the results from the isolation and identification of your unknown bacteria. A total of 25 points are possible on this report and it comprises 25% of your final grade. The format that you should use in writing the report is as follows.

Title: Isolation and Identification of Unknown Bacteria

Date:

Author:

Brief statement of purpose (1-2 sentences): (1 point)

Materials & Methods. This section should contain a systematic listing of all tests that you performed. Unless the protocol that you used was different from that describe in the lab notebook, you may state concisely, that “the protocol as described in the 302 manual was followed”. (2 points)

Results and Discussion. The results/discussion section should contain the results from all observations and tests that you performed and your conclusions. Structure this section as follows.

1. Week 1. Results of initial Gram stain of your mixed culture. (1 points)
2. Week 2. Results of streak plates for isolation of unknowns. (1 points)
   a. Did you get isolated colonies?
   b. Did you detect two colony morphs?
   c. Describe colony morphs.
3. Week 2. Results of Gram stain from initial streak plates of mixed cultures. (1 points)
4. Week 3. Results of streak plates. (2 points)
5. Week 3. Results of Gram stain on isolated unknowns. (2 points)
6. Week 3. Selection of physiological tests and the logic of your selection (see dichotomous keys; you should include in your report a diagram of the dichotomous key that you are working from showing the tests that you performed). (5 points)
7. Week 3. Results of tests not requiring incubation (catalase, oxidase, indole etc.).
8. Week 4. Results of physiological tests requiring incubation. (2 points)
9. Conclusion. The identification of your unknowns. (4 points) This should include not only the identification of the unknowns but the logic demonstrating how you arrived at your conclusion. Any anomalous result should be discussed here, especially in cases where tests were inconsistent. Did you find two distinct organisms? If not, what may have been the reason(s) for your failure? (4 points)