## Biology 2A03 Marking Scheme Winter- 2017

### Abstract: [ /5 ]

- Maximum is 0.5 pages
- State **ONLY YOUR RESULTS** in a concise, fluent manner.

#### **Introduction:** [ /10 ]

- State coherent background information, major purposes and objectives relevant to the laboratory.
- Be concise.
- Maximum is 0.5 pages.

## Materials and Methods: [ /5 ]

- State the appropriate pages (or the title of the lab) from the lab manual.
- No need to repeat material in the lab manual but it is <u>important</u> to state any deviations from the lab manual.
- Include any sample calculations in this section.

## **Results:** [ /40 ]

- Clear and coherent description of **ALL** results using <u>past</u> tense.
- **NO INTERPRETATION OF DATA** E.g. "Heart rate increased 2.1 fold between 0 and 150 watts of power output (Fig. 2)" is good but "Heart rate increased 2.1 fold between 0 and 150 watts of power output because of activation of the sympathetic nervous system" is not acceptable.
- State results in paragraph or sentence form. Point form is **NOT** acceptable.
- Label all figures and graphical axes (if applicable). Be sure to include units!
- All short forms (e.g. ACH for acetylcholine) should be included in the legend below the figure.
- **DO NOT** include information if it is extraneous or irrelevant to what you are attempting to communicate to the reader (e.g. regression lines, equations etc).
- Legends/captions for Tables are presented above the Table and legends/captions for Figures are presented below the Figure. **DO NOT** include a figure title generated by Excel or other graphing programs.
- No gridlines or grey background on figures. Both colour or black and white data labels and trend lines are acceptable provided the information is clearly presented.

#### **Discussion:** [ /30 ]

- Paragraph form, **NOT** point form.
- Answer <u>ALL</u> questions from the lab manual.
- Interpret your data accurately, fluently and coherently and compare it to published and/or class data.
- Refer only to information that is relevant to this laboratory exercise.
- Must include APA style referencing e.g. "Earlier pharmacological studies (Adams and Bird, 1976; Smith and Jones, 1991) demonstrated a strong vagal component to heart rate control in the frog".
- Focus on explaining your results, not the expected results. If your results are not unexpected, briefly try to explain why.
- Remember, you are writing to an audience that may or may not understand science, <u>never assume</u> something is understood.
- Maximum is 4 Pages.

### **References/ Layout:** [ /5

- A MINIMUM of 5 references must be included per report (one of which may be a textbook).
- Format references using APA style referencing
- Reference list must be in alphabetical order and be of a consistent format.
- The lab manual, lectures and Wikipedia are <u>NOT</u> acceptable reference sources. If in doubt about the validity of a source, ask your TA or the IA.
- The various sections of the report are arranged in the correct sequence.
- 12 POINT TIMES ROMAN font, double spaced with default margins.
- Report has a title page, page numbers are located at the bottom right of each page (excluding title page).
- Unless otherwise directed, do not include an appendix.

# **Grammar/Spelling:** [ /5 ]

- Use spell check!
- Hand this sheet in with every assignment (2.5 mark deduction if not included).