This lab report should be completed in pencil in your LAB JOURNAL.

1. **Introduction and Purpose**
   1. Briefly describe the **purpose** of the investigation.
   2. Discuss the following:
      1. The main job of the heart.
      2. How the heart pumps blood; what causes it to beat, the pathway of blood through the body.
      3. Why the heart’s job is important.
      4. Why the circulatory system is important.
2. **Observations and Data**
   1. Record qualitative **observations** (made with the 5 senses):
      1. a table to compare the structure and appearance of the four chambers of the heart.
      2. Make **3 drawings**:
         1. Part II, 4: External features
         2. Part IIIA, 3: Valve
         3. Part IIIB, 3: left side of heart
         4. Part IIID, 5: right side of heart
   2. Record quantitative **data** (measurements and calculations): a table to record all your measurements of wall thickness in a suitable way.
3. **Results and Analysis**
   1. Analyze the quantitative data (graphs and/or calculations).
      1. Calculate the ratio between the thickness of the wall of the left ventricle and that of the wall of the right ventricle. Show your work
   2. Analyze the qualitative data (observations).
      1. Explain how the valves you have displayed in your dissection ensure that blood flows through the heart.
4. **Conclusion**
   1. In paragraph format, discuss the following:
      1. A description of the anatomy of the heart (the size/muscularity of the atria and ventricles, the valves, the arteries and veins on the outside, the vena cava, aorta, pulmonary artery and pulmonary vein.
      2. A future investigation you would like to pursue about the circulatory system.
      3. Any anomalous or unexpected results.
   2. Answer the following questions within your paragraphs:
      1. Is the muscle wall of the atria thicker or thinner than the ventricles?  Explain why this is the case.
      2. Describe how the right ventricle is different from the left ventricle in terms of size and muscle thickness.
      3. What can you say about the size (volume) of each of the chambers?  Are they different sizes, which is the largest?
      4. What is the difference between the AV valves (bicuspid and tricuspid) and the SL valves (pulmonary valve and aortic valve)?
      5. Which are thicker, the arteries or the veins coming out of the heart? Why?
      6. What do each of the major blood vessels look like and what do they do?