**Extension Assignment: Reflex Arcs**

**Biology 12 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Value = 10 marks**

**Directions:** You will complete the activity as a group, those who would like extension marks are able to pass in their work for marks.

**Part I: Activity questions**

Complete the activity, making sure to answer each of the lettered questions (a) through to (g) found throughout the activity. **(2)**

**Part II: Activity Analysis**

1. What is a reflex arc and why don’t we have control over our own? **(2)**
2. Create a sketch of the neural circuit that would have occurred when the knee was hit with the reflex hammer. Your can decide how many neurons of each may be involved. **(3)**
3. Why is the knee-jerk reflex exaggerated when the subject is clenching the book? **(1)**
4. Explain how the knee-jerk and Achilles reflexes are important in walking. **(1)**
5. The neuron is severed at point X. Explain how the reflex arc would be affected. **(1)**

