

Lab analysis essay sample



**ASSIGN
BUSTER**

Lab Analysis Questions

1. What are the important ions for most neurons when considering changes in membrane potential? (3 points)
2. What is the resting membrane potential? (3 points)
3. What does it mean that the voltage just inside the membrane is negative? (4 points)

Neurophysiology of Nerve Impulses Activity 2: Receptor Potential (20 points total)

Notes:

•After reading the Overview and Introduction, Click on Experiment. •Follow the directions on the left side of the menu to complete the lab. Use the data chart to answer the following questions. You do not have to submit your lab to be recorded.

4. Lab Analysis Questions (5 points each)

1. Pacinian corpuscles only respond to changes in:
2. Which sensory receptor responds to more than one stimulus? What were the different stimuli?
3. Which intensity of which modality created the greatest amplitude of response? Why?

Connections to Human Physiology

1. Considering what you learned about sensory receptors, what do you think would be most damaging to an individual: being born without olfactory receptors, pacinian corpuscles or free nerve endings in the hands or feet?

Explain your answer.

Neurophysiology of Nerve Impulses Activity 8: Chemical Synaptic Transmission and Neurotransmitter Release (20 points total)

Notes:

•After reading the Overview and Introduction, Click on Experiment. •Follow the directions on the left side of the menu to complete the lab. Use the data chart to answer the following questions. You do not have to submit your lab to be recorded.

Lab Analysis Questions (5 points each)

1. What is the purpose of a neurotransmitter?
2. Which chemical has the greatest effect of neurotransmitter release?
3. Why does the stimulus intensity affect the amount of neurotransmitter release at the axon terminal?

Connections to Human Physiology

1. Considering what you have learned about chemical synapses and neurotransmitters, why is it important to ingest adequate amounts of calcium? If there is not enough circulating calcium in the bloodstream, where will the calcium come from? Why would this be problematic?

Endocrine System Physiology Activity 2: Plasma, Glucose, Insulin and Diabetes (20 points total)

Notes:

•After reading the Overview and Introduction, Click on Experiment. •Follow the directions on the left side of the menu to complete the lab. Record your data in Chart 1. •Use the data chart to answer the following questions. You do not have to submit your lab to be recorded.

Chart 1: Glucose Standard Curve (volume in mg/deciliter) (10 points)

TubeOptical DensityGlucose (mg/deciliter)

Lab Analysis Questions (5 points each)

1. Explain how a glucose standard curve can be used to determine the concentration of glucose in a sample.
2. According to the glucose standard curve you generated in this activity, estimate the optical density of a solution with a glucose content of 15 mg/deciliter, and explain your answer.