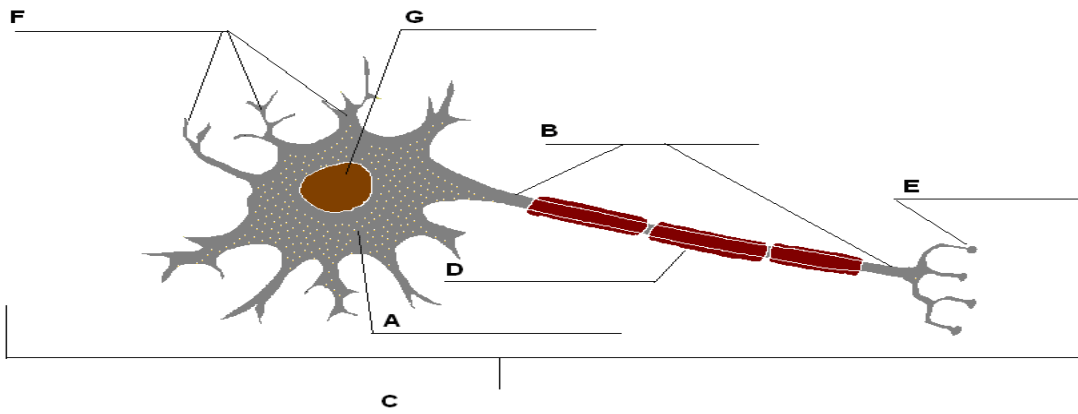


Biology Homework 1-7: Body Systems-Nervous – Part A

The nervous system controls and coordinates functions throughout the body and responds to internal and external stimuli. The messages carried by the nervous system are electrical signals called impulses. The nerve cells that transmit these impulses are called neurons. The main part of a **neuron** is the **cell body** or soma. Like other cells, neurons contain cytoplasm, mitochondria, a **nucleus** and other organelles. The treelike structures on the cell body are called **dendrites**. Dendrites direct impulses towards the cell body. Impulses pass through the cell body and leave the neuron through a long threadlike structure called the **axon**. The **myelin sheath** is a fatty substance that surrounds and protects the axon. The **axon terminal** is at the end of the neuron. It forms a synapse with the next neuron transmitting an impulse to it.

1. Identify the function of the nervous system.

2. Label the diagram below using the **bolded words** in the text above.



3. The messages carried by the nervous system are called-

- a. conduction signals
- b. impulses
- c. chemical signals
- d. all of the above

4. Identify three major differences between prokaryotic and eukaryotic cells.
