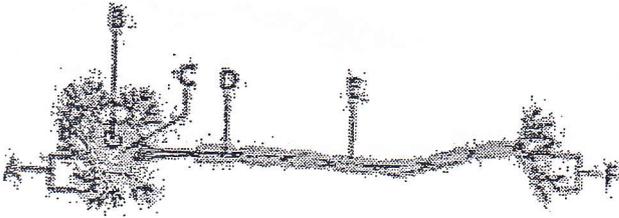


NAME: Key

Date: _____

1. Identify the various parts of the neuron.



- A dendrite
- B nucleus
- C cell body
- E Axon
- F axon terminals

2. Match each of the words in the left column to their proper definition in the right column.

- | | | |
|----------------|--|---|
| Neuron | | Anything that can be perceived by a living organism |
| Nervous system | | Electrical signal transmitted by a neuron |
| Stimulus | | Specialized cell that receives and transmits message |
| Nerve impulse | | System that receives, transfers and transmits information |

3. Give two differences between the peripheral Nervous system and the central nervous system

- Peripheral Nervous System → only white matter (sensory + motor) transmit only
- Central Nervous System → Brain + Spinal cord, white + grey matter, transmit + analyze

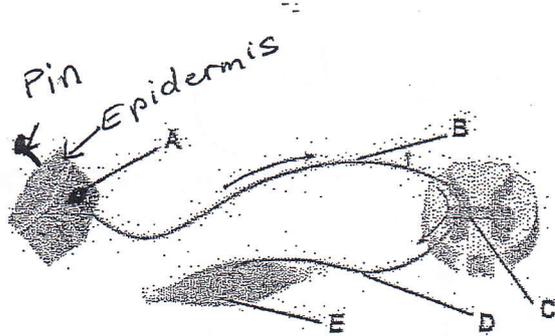
4. Explain how a Nerve impulse travels through a neuron

dendrite - cell body - axon - axon terminal

5. Explain the pathway followed by the nervous impulse (from our hand to the arm muscles) when as a reflex, we jerk our hand away from a hot stove.

- ① Stimulus (Heat = pain)
- ② sensory receptor
- ③ Integrating sensor (S.C / grey matter)
Sends impulse to:
- ④ Motor neuron (effector)
- ⑤ effector muscle responds to motor nerve impulse

5. b) Identify the letters in the reflex shown.



- A. Sensory receptor
- B. Sensory neurone
- C. Integrating center
- D. Motor neuron
- E. effector (muscle)

6. A person hears a very loud sound and takes a step back to move away from it. Place in order the structures through which the nervous impulse will travel.

- Sensory nerve
- Motor nerve
- Central nervous system
- Sensory receptors
- Stimulus
- Muscles

- ① Stimulus
- * ② sensory receptors
- * ③ sensory nerves
- * ④ CNS
- * ⑤ motor nerve
- * ⑥ muscles

7. Match the following types of movements to the corresponding situations listed below.

- A. Voluntary movement
- B. Involuntary movement
- C. Reflex

- a) Withdrawing your hand from a hot barbecue grill R
- b) Motions of the digestive system to digest an ice cream cone I
- c) Reading an adventure novel V
- d) Protecting your head when near a falling object R
- e) Turning your head to see a friend V
- f) Breathing during sleep I

8. Identify the following:

- a) I receive messages and transform them into nerve impulses.
- b) I transmit nerve impulses
- c) Nerve impulses travel through my long neuron extensions.
- d) I am the junction between two neurons.

receptor/dendrite
neuron

axon/axon terminal
Synapse