

RAVEN CHAPTER 44 GUIDED NOTES: THE NERVOUS SYSTEM

Raven 9th edition

How does a sensory neuron link to a motor neuron?

Two Divisions of the Nervous System:

a. Central nervous system

b. Peripheral nervous system

3. Label this diagram of a typical neuron:

A: cell body

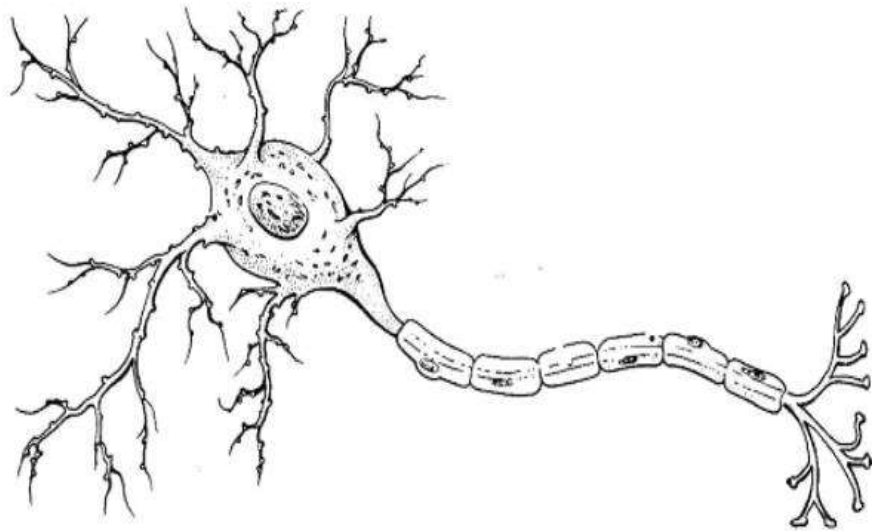
B: axon

C: dendrite

D: Myelin Sheath

E: Schwann cell

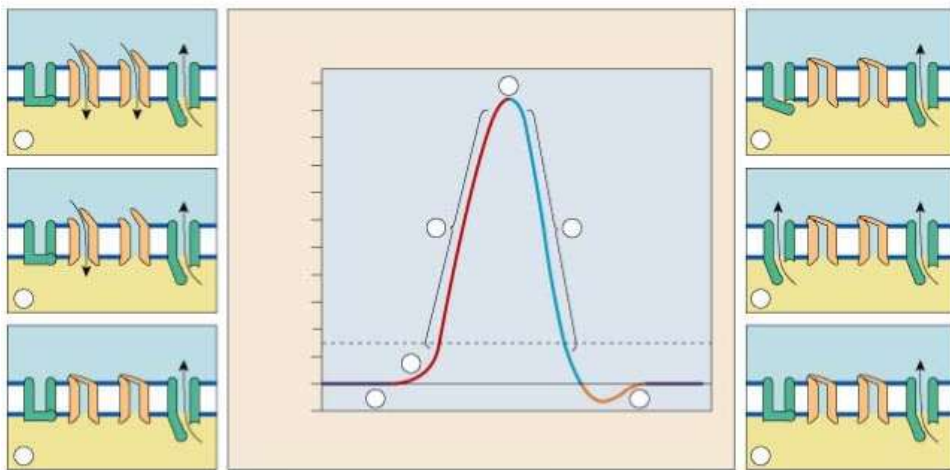
F: Node of Ranvier



4. Explain how a neuron maintains a -70 mV potential.

5. Detail the stages of the “action potential.” Use the graph and diagrams below to indicate what is happening at the membrane in each stage.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____



6. Describe what happens in the pre-synaptic axon when an impulse reaches the terminal end of the axon.

7. How does an impulse propagate down the axon?

8. Describe what happens at the synapse.

9. How are “messages” carried...

a. in neurons

b. between neurons

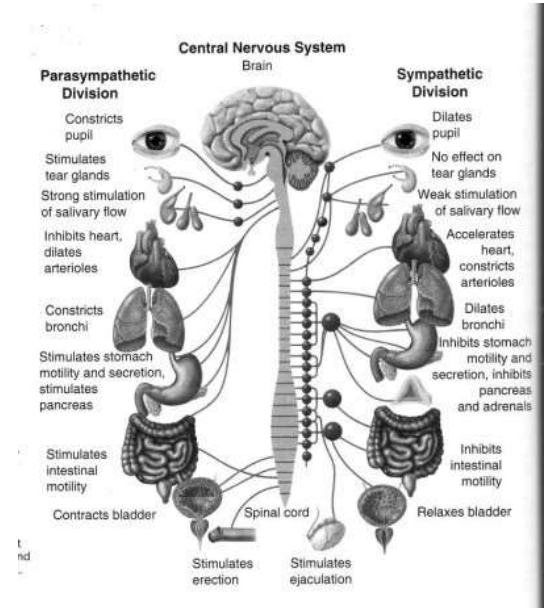
10. Make some brief notes about the differential action of neurotransmitters

a. norepinephrine

b. Epinephrine

11. Take notes on the relationship between drug addiction and neurotransmitters

14. Use the following diagram to explain how the sympathetic and parasympathetic divisions of the autonomic nervous system work together.



15. Explain the fight-or-flight mechanism.

16. List the major components of the human brain and indicate their functions.

