

Study Guide

Review Questions

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1. Fill in the blanks with vocabulary words from module 2.

The nervous system is made up of nerve cells called _____, which carry _____ impulses from extensions called _____, through the cell body, to one extension called an _____. Axons that are going to the same place in the body are bundled together into _____. _____ neurons carry impulses away from the brain and spinal cord. _____ neurons carry impulses toward the brain and spinal cord. An impulse is begun by a _____, which is a detectable change, acting upon a _____ receptor, which causes an attached sensory neuron to send the signal toward the brain. If the impulse goes through a sensory neuron to the spinal cord, through an _____ neuron in the spinal cord, and then through a _____ neuron that moves a muscle, the entire response is called a _____.

Other neurons take the signal to the brain where it is interpreted by many _____ neurons. An action is chosen and signals are sent to _____ neurons, which go to muscles or glands to carry out the action. Sensory, motor, and _____ nerves make up the _____ nervous system. The brain and spinal cord make up the _____ nervous system.

The brain has regions dedicated to different tasks. The _____ is where thinking happens. The _____ refines muscle movement and balance. The _____ controls vital functions. The brain also contains important glands of the endocrine system.

Between the neurons are spaces called _____, or gaps, where _____ are released by the sending neuron's axon and bound to the receiving neuron's _____. These differ in their effects on nerve cells. In the brain, _____ is the most common, and it excites the receiving neuron to fire off an impulse. A neurotransmitter that _____ the transmission of the impulse is GABA. Another neurotransmitter, _____, improves memory. Only a tiny bit of neurotransmitter is released at any one

synapse, but because of the large numbers of synapses, the brain is bathed in them. If there is too much or not enough neurotransmitter, it is called an _____.

Some illegal drugs imitate _____, even bringing _____ relief, but they often have a side effect of intense pleasure called a _____. An _____ is someone who becomes _____ or emotionally dependent on the effects of a drug.

Getting enough _____, _____, eating healthful food, reducing _____, and pursuing _____ habits are natural ways to improve neurotransmitter balance.

Match the terms about brain illness on the left with the best definition on the right.

- | | |
|------------------------------------|--|
| 2. _____ aneurysm | a. blood clot that is below the surface |
| 3. _____ concussion | b. blood vessel breakage in the brain |
| 4. _____ edema | c. brain bruise from a blow to the head |
| 5. _____ encephalitis | d. condition characterized by more than one seizure |
| 6. _____ epilepsy | e. inflammation of the brain |
| 7. _____ hemorrhagic stroke | f. inflammation of the coverings of the brain |
| 8. _____ hematoma | g. loss of blood flow to an area of the brain causing those neurons to die |
| 9. _____ inflammation | h. spontaneous activity of the neurons of the brain resulting in times of unconsciousness |
| 10. _____ ischemic stroke | i. state of irritation of the tissues |
| 11. _____ meningitis | j. swelling |
| 12. _____ seizure | k. weakened area of a blood vessel that might break |

- 13.** Fill in the blanks with vocabulary words from module 2.

The _____ system is made up of glands and the _____ they produce and release into the _____. A hormone is a chemical that produces a response

MODULE 2: PHYSICAL INFLUENCES ON THOUGHTS AND FEELINGS

in a _____ cell, which is a cell with _____ for that hormone.

The _____ is responsible for producing hormones that enhance or discourage sleep. It produces _____ during the day and _____ during the darkness. The _____ and the _____ control growth and send out signal hormones to other endocrine glands.

The hormones that cause preparation for a fight or an escape are produced in the _____ glands. One is _____, which reduces inflammation. Another is _____, which speeds up the heart. The _____ produces thyroxine, which raises the _____ rate of the cells. The _____ produces insulin, which lowers blood _____ levels by causing the cells to take glucose out of the blood and store it. An overcorrection of _____, called _____, may happen when you eat sugary snacks on an empty stomach.

If the pancreas doesn't make enough insulin, type _____ results. Another kind, type _____, happens when the cells that take in glucose from the blood become _____, and glucose levels in the blood remain high in spite of insulin being present.

Reproductive hormones include _____ and _____, which are released by the ovaries, and _____, which is released by the testes. They are controlled by signaling hormones from the _____ gland. The male hormone has a _____ cycle of low and high levels, and the female hormones have a _____ cycle of low and high levels. The emotional glue hormone that holds families together is _____.

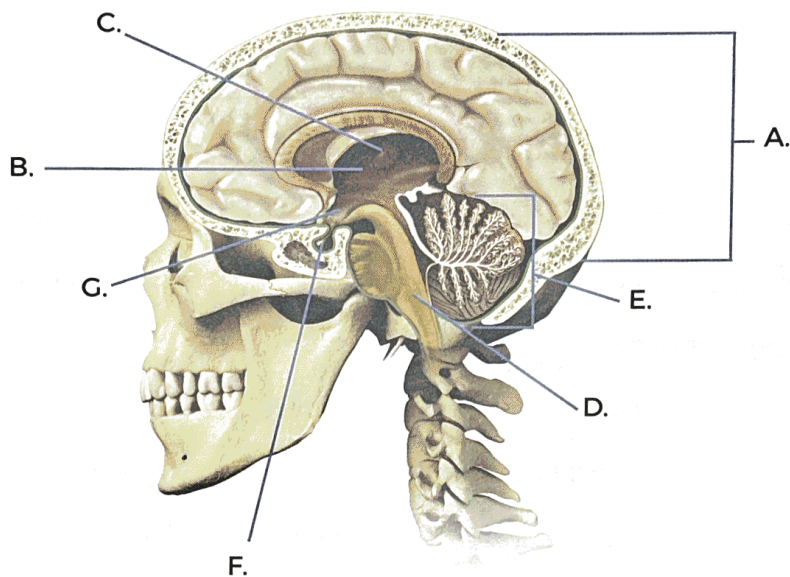
One way to increase your ability to do a difficult task is to take a _____ pose. This _____ natural testosterone and _____ cortisol.

14. List the 5 signs of inflammation.

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

15. Name the area in the brain indicated by the letter in the figure below.

- A. _____ E. _____
B. _____ F. _____ (gland)
C. _____ (gland) G. _____ (region)
D. _____



Answers to this Study Guide are found online on your book extras page. When you feel confident that you have mastered the materials in this module, you can find the exam at the back of this notebook. Your parent or teacher will grade your exam.