Unit 3 Biological Bases of Behavior Concept Sheet

Directions: As you read the modules (pages 75-149) in Unit 3, answer the following questions fully and in complete sentences. You cannot type your responses.

1. Describe the process of a neural firing. Be sure to include threshold, action potential, the sodium-potassium pump, depolarization, synapse, refractory period, resting potential, etc.
2. How do agonists and antagonists alter neurotransmission?
3. What is the difference between sensory neurons, motor neurons, and interneurons?
4. What are reflexes, and where are they generated?
5. How is the endocrine system similar to the nervous system?
6. Describe the function of the following types of brain stimulating technologies:
   1. EEG
   2. CT scan
   3. PET scan
   4. MRI
   5. fMRI
7. How does the human brain compare to other animal brains?
8. How does the reward deficiency syndrome affect people?
9. Describe the four components to the cerebral cortex.
10. Describe the function and location of the following cortices/association areas:
    1. Motor cortex-
    2. Somatosensory cortex-
    3. Prefrontal cortex-
    4. Broca’s area
    5. Wernicke’s area
11. What does “brain plasticity” refer to?
12. What did Gazzaniga and Sperry’s split brain research reveal?
13. What does “brain hemispherization” refer to? Give some examples of the tasks of each hemisphere.
14. Read the Close-Up box on page 118. How does left-handedness or right-handedness relate to hemispherization?
15. What are the mind’s two tracks, and what is “dual processing”?
16. What is the purpose of twin and adoption studies? What can they reveal, regarding the nature-nurture debate?
17. How do genetics influence our behaviors and the environment?
18. How have heredity and your environment influenced who you are today?