

## **Central Nervous System**

1. What are the 4 regions of the adult brain?
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_
  - d. \_\_\_\_\_
2. What connects the cerebral hemispheres
3. What is responsible for consciousness and higher order thinking?
4. What are the 3 paired gray-matter structures of the diencephalon?
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_
5. What is the function of the thalamus?
6. Where is the hypothalamus located?
7. What division of the nervous system does the hypothalamus control?
8. What "system" is responsible for emotions like fear, rage, pleasure
9. Which portion of the diencephalon contains the pineal body
10. What are the 3 regions of the brain stem

- a. \_\_\_\_\_
- b. \_\_\_\_\_
- c. \_\_\_\_\_

11. What 2 parts does the midbrain consist of?

12. What is the reticular formation's function?

13. The medulla is an \_\_\_\_\_ reflex center

14. What are the functional groups of the medulla?

- a. \_\_\_\_\_ center- in charge of rate of heart contraction and can adjust  
blood vessel diameter for blood pressure regulation
- b. \_\_\_\_\_ center- generates respiratory rhythm
- c. Other centers like vomiting, hiccupping, swallowing, coughing, and sneezing

15. What are the functions of the cerebellum?

16. \_\_\_\_\_ covers and protects the CNS as well as the blood vessels

17. From external to internal, what are the layers of the above structure

- a. \_\_\_\_\_ mater
- b. \_\_\_\_\_ mater
- c. \_\_\_\_\_ mater

18. What is a homeostatic imbalance where the meninges would be inflamed

19. \_\_\_\_\_ functions to cushion parts of the CNS

from blows and other trauma, as well as nourish the brain

20. What is a homeostatic imbalance where an obstruction blocks CSF circulation or

drainage, resulting in increased pressure

21. \_\_\_\_\_ barrier helps maintain a stable environment

for the brain

22. T/F The above barrier is absolute

23. What are the 5 components of a reflex arc

a. \_\_\_\_\_ - receives stimulus

b. \_\_\_\_\_ neurons- transmits afferent impulse to CNS

c. \_\_\_\_\_ - the processing center

d. \_\_\_\_\_ neuron- conducts efferent impulse to the effector

e. \_\_\_\_\_ - body part being stimulated

24. Which reflex has only 1 synapse, therefore there are no association neurons, thus no

integration or "control"?

25. Which reflex involves integration and therefore the potential or over-riding the automatic motor response?

### **Peripheral Nervous System**

1. What must happen for sensation to occur?
2. What is energy of stimulus is converted into graded potential called generator potential or receptor potential called?
3. What is a change in sensitivity in presence of constant stimulus called?