Anatomy 35 1Unit IV Study Guide

Endocrine

1. What are the functions of the endocrine system?
2. Describe the position of the pituitary gland in the body.
3. Know the regions of the pituitary gland and some of the glands produced in each region.
4. What is the function of the hypothalamopituitary portal vessel?
5. What is the infundibulum?
6. Describe the location of the thyroid gland.
7. Describe the histology of the thyroid gland, including thyroid follicles and the parafollicular cells, and their functions.
8. Describe the location, histology, and function of the parathyroid glands.
9. Describe the location of the thymus and its function
10. Describe the location, macroscopic and microscopic structure of the adrenal glands.
11. Describe the location of the pancreas.
12. Know the endocrine and exocrine structures of the pancreas and their functions.

Nervous System

1. Describe the components and organizational divisions of the CNS and the PNS
2. Know all of the parts of a neuron.
3. Know the structural and functional classifications of neurons.
4. Be able to describe the glial cells and their functions.
5. What is myelination? Which type of cell is responsible for this in the PNS and CNS
6. Be familiar with terminology of the CNS and PNS (tract, nerve, ganglion, nucleus).
7. What is grey matter? What is white matter?
8. Know the major regions of the brain.
9. Know the meninges and their general characteristics.
10. Be familiar with the distinction between subdural and epidural hematoma.
11. Be able to describe and identify the 4 ventricles of the brain.
12. Describe the circulation of the CSF.
13. Know the parts of the brain, their location relative to one another, and their general functions.
14. What are gyri and sulci? What are folia?
15. What are the lobes of the cerebral cortex?
16. What are the functional areas of the brain?
17. What is cerebral lateralization and how does this relate to disconnection syndrome?
18. Know the types of cerebral white matter tracts.
19. What are basal nuclei?
20. What are the components of the diencephalon?
21. Describe the epithalamus and its components.
22. Describe the thalamus, its location, and function.
23. Identify and describe the hypothalamus.
24. Describe the brain stem and its structures, including the mesencephalon, pons, medulla oblongata.
25. What are the reticular formation and the limbic system?
26. Describe the anatomy of the cerebellum.
27. Describe the gross anatomy of the spinal cord, including the regions and the meninges.
28. Describe the cross sectional anatomy of the spinal cord and the regional differences.
29. Give a general overview of nervous system development.
30. Discuss abnormalities of neural tube development and its relationship to folic acid.
31. Be able to identify all of the cranial nerves.
32. Describe spinal nerve structure, including roots, rootlets, and dorsal root ganglia.
33. Where do sensory neurons enter the CNS, where to motor neurons leave the CNS?
34. What is a nerve plexus?
35. Why is it unsafe to give an epidural to a person with a tattoo on their lower back?
36. Know the components of a reflex arc and the general pathway of the patellar reflex, flexor reflex, and crossed extensor reflex.
37. Describe the general organization of the autonomic nervous system.
38. Compare and contrast sympathetic and parasympathetic motor neuron pathways.
39. What are visceral reflexes?

**Sensory**

1. Know the various classifications of sensory neurons, including structural, functional, and by stimulus origin.
2. What are proprioceptors and nociceptors?
3. What is referred pain?
4. Know the macroscopic anatomy of the eye.
5. What are the tunics of the eye?
6. Describe the lens.
7. What are the optic disc and the fovea centralis?
8. What is the optic fundus?
9. Describe the cavities of the eye.
10. Which cranial nerves innervate the eye?
11. Know the pathway of the optic nerve.
12. Describe the macroscopic anatomy of the ear.
13. Know the components of the outer, middle, and inner ear.
14. What are the cochlea, vestibular apparatus, and the organ of Corti?
15. Describe the anatomical structures associated with taste and smell.