Medical Studies 20

HCS 2050 – Nervous System and Senses

Final Exam Review

Name:

Date:

1. **Complete the following with one of the following terms:**

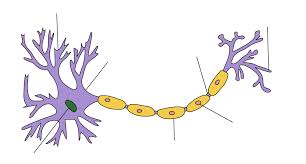
CNS PNS Schwann Cells tracts

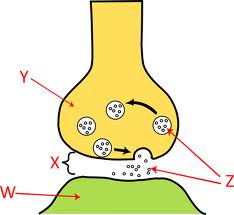
Sensory neuron motor neuron nerves depolarization

Afferent neuron efferent neuron resting state Effector

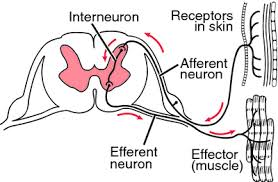
Repolarization action potential salutatory conduction

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or efferent neurons that carry impulses from the CNS to muscles.
2. The\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is made up of all the nerves outside of the central nervous system.
3. An \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is any tissue or organ that carries out a nervous system command.
4. Fiber bundles located in the PNS are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
5. Sensory neurons are also known as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
6. Fiber bundles located in the CNS are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
7. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ includes the brain and spinal cord.
8. A non-stimulated neuron is at a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
9. A nerve impulse moving down the axon of a nerve can also be called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
10. Some axons are covered with a fatty coating called myelin. This causes the action potential to “jump” from node to node more quickly along the axon. This is known as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
11. Specialized cells that form myelin are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
12. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is when the electric charge in the neuron returns to resting value.
13. **Label the following diagrams**:





**Reflex Arc**



*efferent neuron interneuron receptors in skin*

*afferent neuron effector (muscle) grey matter white matter*

1. **Matching: Disorders and Procedures**

\_\_\_\_ 1. ALS (Lou Gehrig’s disease) a) a viral disease of the nervous system

\_\_\_\_ 2. MS most commonly affecting children

\_\_\_\_ 3. Paraplegia b) A nervous system disorder where

\_\_\_\_ 4. Lumbar puncture motor neurons are destroyed

\_\_\_\_ 5. Quadriplegia c) taking of spinal fluid from the space

\_\_\_\_ 6. Epidural between the 3rd and 4th lumbar

\_\_\_\_ 7. Poliomyelitis vertebrae to check for disease

d) paralysis of all four limbs

e) paralysis of both lower limbs

f) injection of medication or anesthetics

into the epidural space in the lumbar

region

1. **Parasympathetic or Sympathetic Systems**

Place a P or an S to indicate which system is activated

\_\_\_ 1. Constriction of pupils

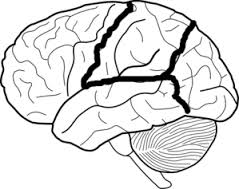
\_\_\_ 2. Dilation of bronchial tubes

\_\_\_ 3. Increase in blood pressure

\_\_\_ 4. Slowing of heart rate

\_\_\_ 5. Dilation of blood vessels to skeletal muscles

1. Label the structures of the brain



1. **Completion**

Compete the following using the words given:

Occipital lobe Pons frontal lobe cerebellum

Gyri medulla limbic system hippocampus

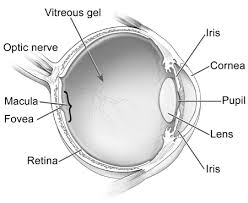
Temperal lobe parietal lobe

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ controls the autonomic functions like breathing
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is involved in emotional states and behavior
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is responsible for hearing, music and some speech
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the “bridge” connecting the medulla and controls alertness and reflexes
5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are the raised portions of the cerebral cortex
6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ involved in memory and judgment
7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ contains sensory cortex in charge of sensation of touch
8. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ controls balance, posture and voluntary motor control
9. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ receives information from the eyes
10. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ looks like a sea horse and is responsible for long term memory
11. **Disorders of the brain**

Meningitis encephalitis epilepsy stroke

Hydrocephalus cerebral palsy alzheimers parkinsons

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ caused by an infection, usually bacterial, that causes swelling of the meninges.
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ unexplained degeneration of the cerebral cortex and the hippocampus
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ an abnormality in the brain’s electrical activity that often causes seizures
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is mainly caused by a blood clot in the brain
5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ caused by brain damage before or during birth
6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ progressive neurologic condition characterized by tremors
7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ an abnormal amount of cerebral spinal fluid within the brain, most often in infants
8. Label the following diagrams



**I . The Eye and Ear**

Complete the sentences with the following:

Cone fovea centralis optic disk rod hyperopia

Glaucoma cataracts astigmatism myopia

hearing loss deafness vertigo macular degeneration

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_complete loss of hearing
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the photoreceptor for colors
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the point where the optic nerve leaves the eye (blind spot)
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ caused by excess pressure of the aqueous humor
5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ partial loss of hearing due to several causes
6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ farsightedness – difficulty seeing objects close up
7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the photoreceptor used in dim light
8. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ nearsightedness – difficulty seeing objects far away
9. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ cloudiness of the lens or the lens’ outer covering
10. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the sensation of spinning due to an inflammation of the inner ear
11. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ an irregular curvature of the cornea and lens causing blurred vision
12. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ area of the retina with the most concentration of cones
13. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ a disorder that distorts the center of the visual field.