

PSYCH 260H Quiz 4

December 2, 2016

Answer the questions using the Scantron form.

Name: _____

1 Main

1. Visual acuity is _____ at the _____.
A. highest; fovea
B. highest; LGN
C. lowest; fovea
D. lowest; ventral stream
2. Gilmore says that the retina is anatomically backwards because the _____ is/are located _____.
A. cornea; at the back of the eye.
B. photoreceptors; at the back of the eye.
C. photoreceptors; at the front of the eye.
D. dark current; in retinal ganglion cells.
3. Which of the following describes the main waystations in the projection of visual information to the cerebral cortex?
A. retina - medial geniculate nucleus - temporal lobe
B. superior colliculus - lateral geniculate nucleus - occipital lobe
C. choice retina - lateral geniculate nucleus - occipital lobe
D. retina - suprachiasmatic nucleus - pineal gland.
4. One theory about how visual information processing is functionally segregated suggests that information about an object's color, shape, or form is routed to the _____ stream.
A. retino-tectal
B. retino-hypothalamic
C. dorsal
D. ventral
5. When an action potential arrives at the terminal button, voltage-gated ion channels open to allow _____ to enter the neuron; this triggers the binding of synaptic vesicles to the presynaptic membrane and the _____ of neurotransmitters.
A. Calcium (Ca⁺); degradation.
B. Sodium (Na); reuptake
C. Sodium (Na⁺); hyperpolarization
D. Calcium (Ca⁺⁺); exocytosis
6. With the exception of one sense modality, all types of sensory information are relayed through the _____ before it arrives in the cerebral cortex.
A. Hippocampus
B. Thalamus
C. Amygdala
D. Cerebellum

7. Human primary visual cortex (V1) is located in the _____ portion of the _____ lobe.
- A. lateral; parietal.
 - B. caudal; occipital.
 - C. medial; occipital.**
 - D. ventral; temporal.
8. Which of the following statements about the retina is *false*?
- A. There are more cones than rods.**
 - B. Photoreceptors hyperpolarize in response to light.
 - C. Visual acuity is highest in the fovea.
 - D. The retinal image is left/right and up/down reversed.
9. The _____ located in the _____ is the focus of research on how the brain coordinates responses to emotion-provoking events.
- A. hypothalamus; dorsal forebrain.
 - B. striatum; dorsal forebrain.
 - C. amygdala; medial temporal lobe.**
 - D. amygdala; dorsal midbrain.
10. Muscle spindle axon fibers conveying information about muscle stretch/length are _____ and _____ heavily myelinated than fibers conveying pain or temperature.
- A. thinner; less.
 - B. thinner; more.
 - C. thicker; less.
 - D. thicker; more.**

2 Bonus

11. Sensory fibers enter the _____ spinal cord, while motor fibers exit the _____ portion.
- A. dorsal; ventral.**
 - B. anterior; posterior.
 - C. medial; lateral.
 - D. superior; inferior.
12. Retinal ganglion cells have _____-shaped center-surround receptive fields with _____ zones.
- A. circular; excitatory and inhibitory.**
 - B. square; modulatory.
 - C. oval; only inhibitory.
 - D. stripe; excitatory and inhibitory.