

PSYCH 260-BBH 203 Quiz 4

April 26, 2016

| |
|---|
| Answer the questions using the Scantron form. |
|---|

Name: _____

1 Main

1. The NMDA receptor contains an ion channel and a neurotransmitter binding site. This makes it a/an _____receptor.
 - A. metabotropic
 - B. ionotropic**
 - C. nicotinic
 - D. presynaptic
2. The hippocampus is located in the _____.
 - A. medial frontal lobe
 - B. dorsal parietal lobe
 - C. lateral temporal lobe
 - D. medial temporal lobe**
3. Jane suffered a severe injury to the hippocampus. Now she _____.
 - A. Can learn to juggle, but doesn't recognize her juggling teacher.**
 - B. Recognizes her juggling teacher, but can't learn to juggle.
 - C. Can't seem to learn new juggling tricks, but remembers the name of every trick.
 - D. Can't recognize her teacher's face, but knows her teacher's voice and mannerisms.
4. Long-term potentiation (LTP) refers to the case where _____.
 - A. Neuron A fires but does not wire to any other neuron.
 - B. The connection between neuron A and neuron B is weakened.
 - C. The connection between neuron A and neuron B is strengthened.**
 - D. Neuron A's action potentials grow in size over the long term.
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. The influx of calcium (Ca^{++}) is associated with all of the following *except*:
- A. muscle fiber contraction.
 - B. NMDA receptor activity.
 - C. monoamine neurotransmitter reuptake.**
 - D. exocytosis.