

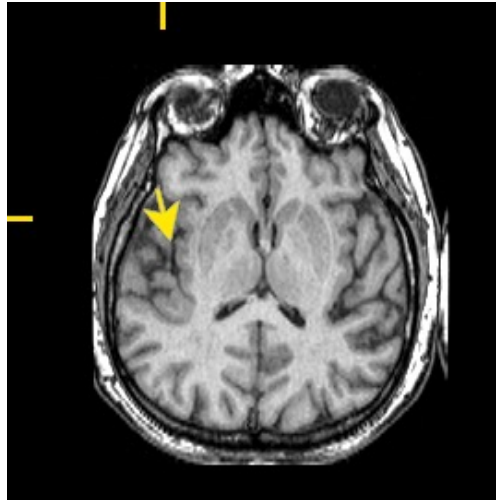
PSYCH 260H Quiz 1

September 8, 2017

Answer the questions using the Scantron form.

Name: _____

1 Main - 10 pts



1. The image illustrates what type of slice?
 - A. Sagittal.
 - B. Dorsal.
 - C. Coronal.
 - D. Axial.**
2. All of the following structures can be seen in the figure EXCEPT
 - A. Corpus callosum.
 - B. Gray matter.
 - C. 4th ventricle.**
 - D. Cerebral cortex.
3. The figure illustrates the use of _____magnetic resonance imaging (MRI), a technique with _____spatial resolution.
 - A. functional; fair ($\sim 3+$ mm).
 - B. structural; good (~ 1 mm).**
 - C. neural; excellent (~ 1 micron).
 - D. diffusion tensor; poor (~ 1 cm).
4. Who believed that the *heart* was the mental organ, and the brain was merely a cooling system for the body?
 - A. Aristotle.
 - B. Galen.
 - C. Vesalius.
 - D. Descartes.**

5. Event-related potentials are detected using _____; they measure _____.
A. positron emission tomography (PET); local metabolic rates.
B. magnetic resonance imaging (MRI); the integrity of white matter fiber tracts.
C. electroencephalography (EEG); the time-locked electrical activity of large numbers of neurons.
D. magnetoencephalography (MEG); average brain magnetic activity.
6. The lateral fissure is _____ to the longitudinal fissure.
A. posterior.
B. anterior.
C. rostral.
D. inferior.
7. Information about airborne chemicals enters the CNS via the 1st (I) cranial or _____ nerve and projects to the _____.
A. optic; lateral geniculate nucleus.
B. olfactory; olfactory cortex.
C. optic; substantia nigra.
D. oculomotor; superior colliculus.
8. All of these structures are components of the midbrain EXCEPT:
A. superior colliculus.
B. 3rd ventricle.
C. tegmentum.
D. inferior colliculus.
9. Why does fMRI represent an indirect measure of brain activity?
A. It measures brain structure, not function.
B. It measures electrical activity, but neurons send chemical messages.
C. It measures changes in blood oxygen and blood flow that follow neural activity.
D. It has poor spatial resolution.
10. Anterograde and retrograde histochemical tracers help neuroscientists determine _____.
A. what stimuli best activate a brain region.
B. what connects where.
C. when to stimulate a brain region for maximum effect.
D. whether a brain area is functioning normally.

Turn to the next page to answer the bonus questions.

2 Bonus

11. This forebrain structure in the ventral diencephalon controls both the autonomic nervous system and the endocrine system.
- A. Hippocampus.
 - B. Thalamus.
 - C. Medulla.
 - D. Hypothalamus.**
12. The arrow in the figure on page 2 shows two parts of the brain that are structurally related and adjacent to one another, the _____ and the _____.
- A. lateral fissure; temporal lobes.**
 - B. spinal cord; lateral ventricles.
 - C. amygdala; tectum.
 - D. basal ganglia; 4th ventricle.