

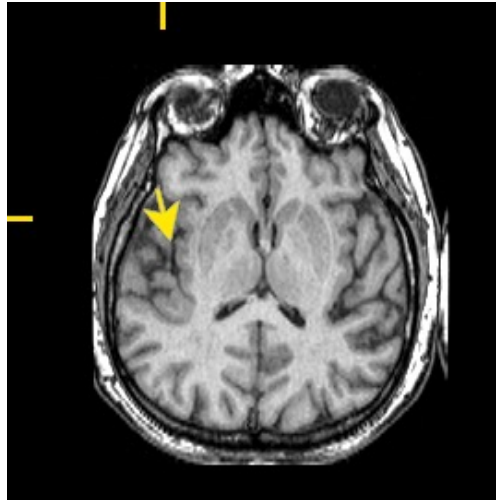
# PSYCH 260H Quiz 1

September 12, 2016

Answer the questions using the Scantron form.
---

Name: \_\_\_\_\_

## 1 Main - 10 pts



1. The image illustrates what type of slice?
  - A. Sagittal.
  - B. Horizontal.**
  - 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 ( $\sim 1$  mm).**
  - C. neural; excellent ( $\sim 1$  micron).
  - D. diffusion tensor; poor ( $\sim 1$  cm).

4. Which philosopher believed that the pineal gland had a special role in both reflexive and voluntary action?
- A. Aristotle.
  - B. Galen.
  - C. Vesalius.
  - D. Descartes.**
5. Event-related potentials are a type of \_\_\_\_\_; 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 longitudinal fissure is \_\_\_\_\_ to the lateral fissure.
- A. posterior.
  - B. anterior.
  - C. rostral.
  - D. medial.**
7. Visual information enters the CNS via the 2nd (II) cranial or \_\_\_\_\_ nerve and projects to \_\_\_\_\_ of the thalamus.
- A. optic; lateral geniculate nucleus.**
  - B. olfactory; striatum.
  - C. optic; substantia nigra.
  - D. oculomotor; superior colliculus.
8. All of these structures are components of the forebrain EXCEPT:
- A. hippocampus.
  - B. tegmentum.**
  - C. hypothalamus.
  - D. cerebral cortex.
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.

## 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 to one another, the \_\_\_\_\_ and the \_\_\_\_\_.
- A. lateral fissure; temporal lobes.**
  - B. spinal cord; lateral ventricles.
  - C. amygdala; tectum.
  - D. basal ganglia; 4th ventricle.