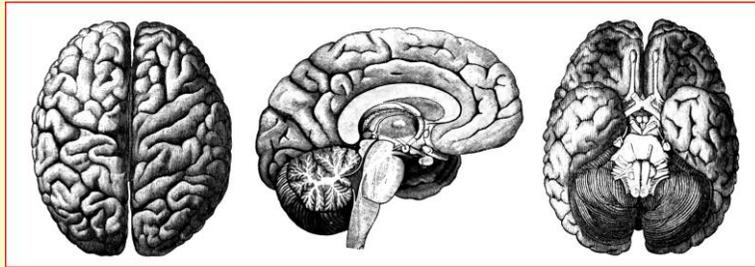


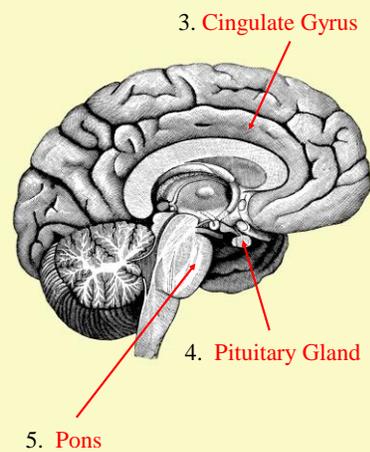
Human Brain



Answers to the Quizzes

Quiz 1A

1. The corpus callosum connects
 - A) motor cortex to the spinal cord
 - B) pons to cerebellum
 - C) left and right hemispheres**
 - D) hippocampus to mammillary body
2. The primary sensory cortex for the hand is located in
 - A) frontal lobe
 - B) superior temporal gyrus
 - C) calcarine fissure
 - D) postcentral gyrus**



Quiz 1B

1. The cerebrospinal fluid is produced by the

- A) pineal gland
- B) choroid plexus**
- C) arachnoid villi
- D) pyramidal tract

2. The primary motor cortex for the hand receives blood from

- A) middle cerebral artery**
- B) posterior cerebral artery
- C) vertebral artery
- D) anterior spinal artery

3. Lateral Ventricle



4. Hippocampus

5. Lateral Sulcus

Quiz 2A

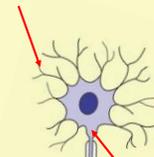
1. The neurons of the brain

- A) are separated from one another**
- B) are far more numerous than glial cells
- C) replace themselves by replication
- D) have no nuclei

2. The hippocampus

- A) looks like a hippopotamus
- B) shows neurofibrillary tangles in Alzheimer's Disease**
- C) receives its blood supply from the anterior cerebral artery
- D) is located in the occipital lobe

3. Dendrite

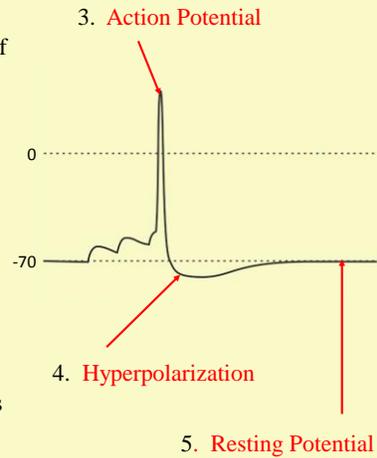


4. Axon Hillock

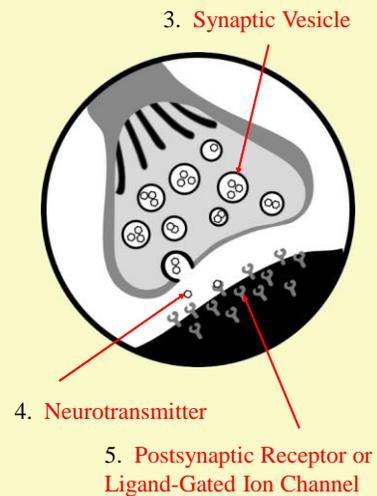
5. Myelin Sheath or Schwann Cell

Quiz 2B

- Compared to the outside, the inside of a resting neuron
 - is positive
 - has a higher concentration of potassium ions
 - has a higher concentration of sodium ions
 - contains fewer enzymes
- Unmyelinated nerve fibers
 - conduct impulses more slowly than myelinated fibers.
 - are only present in peripheral nerves
 - cannot regenerate their axons
 - are primarily affected in multiple sclerosis

**Quiz 3A**

- Neurotransmitters
 - are released from the postsynaptic neuron
 - are produced in the thyroid gland
 - generate action potentials
 - alter ion channels in the postsynaptic membrane
- Postsynaptic potentials
 - can be excitatory or inhibitory
 - last for less than 1 millisecond
 - are larger than the resting membrane potential
 - occur in the brain's white matter



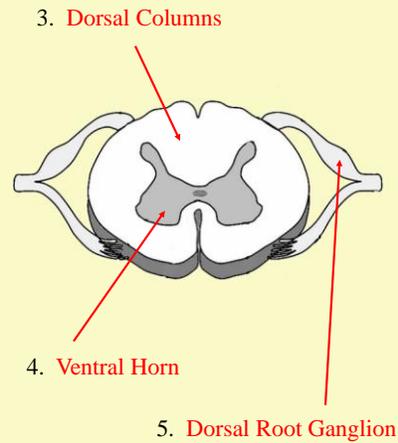
Quiz 3B

1. The basic pathway for the stretch reflex does not involve

- A) sensory receptors in the skin
- B) stretch receptors in muscle spindles
- C) alpha motor neurons
- D) dorsal root ganglion neurons

2. The left spinothalamic tract carries information about

- A) pain and temperature
- B) joint position sense
- C) the left side of the body
- D) the right side of the face



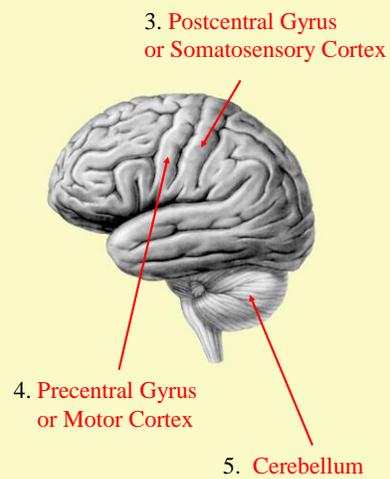
Quiz 4A

1. The chemical transmitter in the neuromuscular junction is

- A) dopamine
- B) acetylcholine
- C) myosin
- D) myelin

2. Most fibers in the pyramidal tract cross from one side to the other in the

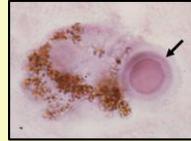
- A) internal capsule
- B) midbrain
- C) medulla
- D) spinal cord



Quiz 4B

1. The chemical transmitter in the nigrostriatal pathway is

- A) acetylcholine
- B) dopamine**
- C) glutamate
- D) serotonin



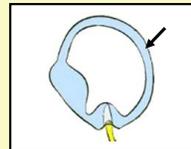
3. **Lewy Body**

2. Which of the following is **not** associated with Parkinson's Disease

- A) tremor
- B) rigidity
- C) slowness of movement
- D) sensory loss**



4. **Purkinje Cell**



5. **Semicircular Canal**

Quiz 5A

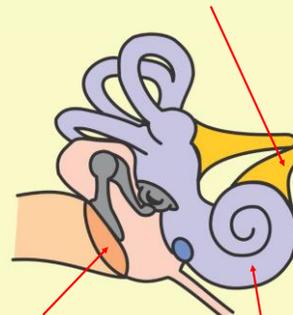
1. The primary auditory cortex is located in the

- A) frontal lobe
- B) calcarine fissure
- C) superior temporal plane**
- D) postcentral gyrus

2. Most afferent fibers in the Auditory Nerve

- A) respond near threshold to a wide range of frequencies
- B) connect to the external hair cells
- C) increase their discharge rate with increasing intensity**
- D) inhibit the activity of hair cells

3. **Auditory/Cochlear Nerve**

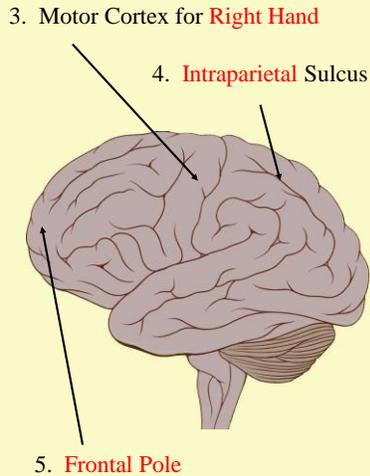


4. **Tympanic Membrane**

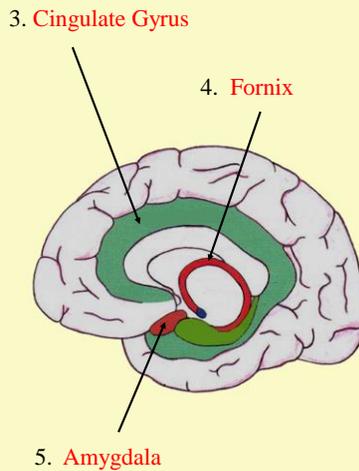
5. **Cochlea**

Quiz 6B

- The physiological blind spot is caused by
 - pupils that do not react to light
 - no receptors over the optic disc**
 - retinal blood vessels
 - prolonged pressure on the eye
- When a picture is presented to the left visual field of a split-brain subject
 - he can name the picture
 - he can identify a corresponding object with the left hand**
 - he can identify a corresponding object with the right hand
 - he can see nothing

**Quiz 7A**

- Amnesia is a
 - a large sea slug used for physiological studies of learning
 - an inability to recognize faces
 - an inability to understand speech
 - a loss of memory.**
- Normal working memory
 - can store about 7 pieces of information**
 - is located in the occipital lobes
 - can store information for years
 - is not affected by aging



Quiz 7B

1. Transient global amnesia

- A) is a forewarning of a stroke
- B) is associated with aphasia
- C) lasts for over 24 hours
- D) requires no treatment**

2. The dopamine concentration in the synaptic cleft

- A) is increased in Parkinson's disease
- B) is decreased by cocaine
- C) is increased by dopamine uptake transporters
- D) is increased by amphetamines**

3. Sadness

4. Happiness



5. Anger

Quiz 8A

1. The most common type of aphasia seen immediately after a stroke is

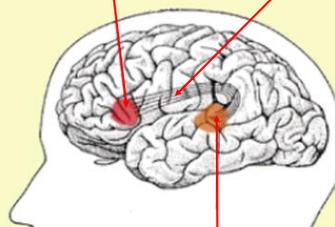
- A) Wernicke's aphasia
- B) Broca's aphasia
- C) Global aphasia**
- D) Anomic Aphasia

2. Anomic aphasia

- A) does not occur in frontotemporal dementia
- B) may evolve from Broca's aphasia**
- C) can be treated with dopamine
- D) is a symptom of normal aging

3. Broca's Area

4. Arcuate Fasciculus



5. Wernicke's Area

Quiz 8B

1. Which brain region is part of the “default network”

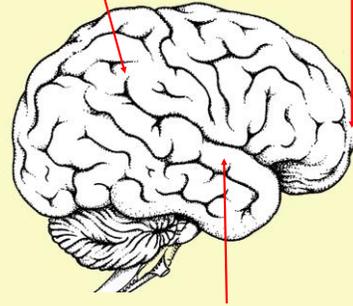
- A) Precentral Gyrus
- B) Calcarine Fissure
- C) **Inferior Parietal Lobule**
- D) Supplementary Motor Area

2. Which symptom is **un**common in Frontotemporal Dementia:

- A) **Wernicke’s aphasia**
- B) behavioral problems
- C) apathy
- D) anomia

3. **Inferior Parietal Lobule**

4. **Frontal Pole**



5. **Superior Temporal Gyrus**