


Pool Canvas

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Name Chapter 1: Introducing Biological Psychology

Description

Instructions

[Modify](#)

[◀ Add Question Here](#)

Question 1 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

Question Your roommate is convinced that we only use 10 percent of our brains. Which of the following statements would be best to use to persuade her that this is **not** true?

- Answer**
- Brain scans indicate that although the entire brain is not active at the same time, each part has an important role to play.
 - It is not reasonable to use an organ so infrequently when it requires so many resources.
 - In the course of evolution, it is unlikely that we would evolve an organ unless its use provided us with some advantages.
 - All of the above.

[◀ Add Question Here](#)

Question 2 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

Question Biological psychology is best defined as the

- Answer**
- study of the mind.
 - science of brain and behavior.
 - study of behavior and mental processes.
 - branch of psychology that studies the biological foundations of behavior, emotions, and mental processes.

[◀ Add Question Here](#)

Question 3 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

Question Which of the following statements best describes the relationship between biology and behavior?

- Answer**
- Biology determines behavior.
 - Behavior determines biology.
 - Biology influences behavior and behavior influences biology.
 - As the complexity of organisms evolved, biology had an increasing influence on behavior.

[◀ Add Question Here](#)

Question 4 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

Question Given what you've learned in this course so far, it is important for you to learn about the brain if you want to be a counselor and not a researcher because you need to

- Answer**
- be able to recognize the possibility of some kind of physical condition behind what appears to be psychological.
 - be able to diagnose mental illness when you talk to people.
 - be able to prescribe medications correctly for your clients.
 - know as much as a neuroscientist.

[◀ Add Question Here](#)

Question 5 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

Question You are a licensed clinical counselor. A 35-year-old woman comes to you who has always been very optimistic and cheerful, but suddenly is extremely depressed. There has been no change in her life circumstances, and she is aware of nothing that could be causing this depression. Given what you have learned so far, what is the first thing you might suggest to her?

- Answer**
- She should see her doctor for a complete physical, and perhaps even see a neurologist to rule out any underlying physical problem.
 - She probably has some deep underlying resentment of her parents that she needs to admit to before she will be able to get better.
 - The whole family should come in for therapy, as there is obviously something going on somewhere that is not obvious.
 - She should see a psychiatrist and get medication for the depression first and foremost, then talk therapy will probably be able to help her.

[◀ Add Question Here](#)

Question 6 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

Question A researcher has found differences between homosexual and heterosexual men in a specific area of the brain. One reason to be cautious in interpreting this finding as proof that this area causes homosexual behavior is that

- Answer**
- behavior may influence the brain as much as the brain influences behavior.
 - the researcher does not have complete confidence in his research.
 - the technology to examine the brain through autopsy is not well developed.
 - MEG recordings have to be done to confirm these findings.

[◀ Add Question Here](#)

Question 7 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

Question Watching a favorite sports team lose

- Answer**
- may decrease a man's testosterone levels.
 - has no influence on a man's biology.
 - may increase a man's testosterone levels.
 - may increase a man's aggressiveness.

[◀ Add Question Here](#)

Question 8	Multiple Choice	0 points	Modify Remove
<p>Question Trepanation is a(an)</p> <p>Answer ✓ ancient practice of drilling holes in a person's skull. type of mummification. postmortem ritual. technique involving the analysis of the bumps on the skull.</p>			
Add Question Here			
Question 9	Multiple Choice	0 points	Modify Remove
<p>Question The process of trepanation</p> <p>Answer always killed the patient. ✓ may have been done to "release evil spirits." appears to have been performed after a person died. was first used during the sixteenth century in Europe.</p>			
Add Question Here			
Question 10	Multiple Choice	0 points	Modify Remove
<p>Question During the process of mummification, early Egyptians discarded the</p> <p>Answer heart. ✓ brain. lungs. stomach.</p>			
Add Question Here			
Question 11	Multiple Choice	0 points	Modify Remove
<p>Question The Egyptian author of the <i>Edwin Smith Surgical Papyrus</i> understood that</p> <p>Answer ✓ paralysis of the body is the result of nervous system damage. the brain is the source of intelligence. functions can be localized in the brain. the brain is made up of separate cells.</p>			
Add Question Here			
Question 12	Multiple Choice	0 points	Modify Remove
<p>Question The Egyptian author of the <i>Edwin Smith Surgical Papyrus</i> provided accurate descriptions of the</p> <p>Answer peripheral nervous system. ✓ meninges and cortical convolutions. lobes of the cortex. cells of the nervous system.</p>			
Add Question Here			
Question 13	Multiple Choice	0 points	Modify Remove
<p>Question The Egyptian author of the <i>Edwin Smith Surgical Papyrus</i> understood that</p> <p>Answer the ventricles are not the source of behavior. epilepsy is a brain disturbance. ✓ most nervous system damage is permanent. information about sensation and movement is carried by separate nerves.</p>			
Add Question Here			
Question 14	Multiple Choice	0 points	Modify Remove
<p>Question Which of the following thinkers correctly identified the brain as the source of intelligence?</p> <p>Answer Aristotle Herophilus ✓ Hippocrates the author of the <i>Edwin Smith Surgical Papyrus</i></p>			
Add Question Here			
Question 15	Multiple Choice	0 points	Modify Remove
<p>Question Which of the follow provide(s) evidence for early, accurate understanding of the function of the human brain?</p> <p>Answer phrenology Egyptian mummification ✓ the <i>Edwin Smith Surgical Papyrus</i> and the writings of Hippocrates trepanation and the writings of Aristotle</p>			
Add Question Here			
Question 16	Multiple Choice	0 points	Modify Remove
<p>Question Who correctly identified epilepsy as a condition of the brain?</p> <p>Answer Galen Aristotle Herophilus ✓ Hippocrates</p>			
Add Question Here			
Question 17	Multiple Choice	0 points	Modify Remove

Question Which of the following thinkers believed that fluids transmit information in the nervous system?

- Answer**
- Aristotle and Herophilus
 - Galen and the author of the *Edwin Smith Surgical Papyrus*
 - Descartes, Aristotle, and Hippocrates
 - Herophilus, Galen, and Descartes

[◀ Add Question Here](#)

[Modify](#) [Remove](#)

Question 18 **Multiple Choice** **0 points**

Question What mistaken notion about the nervous system persisted from ancient times up through the work of some Renaissance thinkers?

- Answer**
- The ventricles play a major role in the transmission of messages in the brain.
 - The heart is the organ of intellect.
 - Damage to the brain is easily repaired.
 - The muscular tremors that characterize epilepsy do not originate in the brain.

[◀ Add Question Here](#)

[Modify](#) [Remove](#)

Question 19 **Multiple Choice** **0 points**

Question Monism is defined as a philosophical view that considers

- Answer**
- mind to be the product of neural activity.
 - mind and body to be separate entities.
 - the senses as the source of knowledge.
 - reality to exist when it enters the thinking of an observer.

[◀ Add Question Here](#)

[Modify](#) [Remove](#)

Question 20 **Multiple Choice** **0 points**

Question Descartes' mind-body dualism is defined as a philosophical view that considers

- Answer**
- mind to be the product of neural activity.
 - mind and body to be separate entities.
 - reality to exist only when perceived by an observer.
 - the senses as the source of knowledge.

[◀ Add Question Here](#)

[Modify](#) [Remove](#)

Question 21 **Multiple Choice** **0 points**

Question According to Descartes,

- Answer**
- only humans are capable of reason.
 - only non-human animals are capable of reason.
 - both human and non-human animals are capable of reason.
 - both human and non-human animals have a mind.

[◀ Add Question Here](#)

[Modify](#) [Remove](#)

Question 22 **Multiple Choice** **0 points**

Question According to Descartes, the mind

- Answer**
- is the product of neural activity.
 - exists in both human and non-human animals.
 - forms an indivisible whole with the body.
 - is not a physical entity that can be studied.

[◀ Add Question Here](#)

[Modify](#) [Remove](#)

Question 23 **Multiple Choice** **0 points**

Question Your former roommate's personality has changed a great deal since an accident injured his frontal cortex. This observation offers support for the _____ view of the mind-body connection.

- Answer**
- phrenologistic
 - monistic
 - socialization
 - dualistic

[◀ Add Question Here](#)

[Modify](#) [Remove](#)

Question 24 **Multiple Choice** **0 points**

Question Anton van Leeuwenhoek advanced brain science by

- Answer**
- demonstrating that neurons communicate via electricity.
 - demonstrating that sensory and motor information travel along separate pathways.
 - inventing the light microscope.
 - proposing the Neuron Doctrine.

[◀ Add Question Here](#)

[Modify](#) [Remove](#)

Question 25 **Multiple Choice** **0 points**

Question The notion of neural communication via fluids was abandoned in response to the work of

- Answer**
- Galvani and du Bois-Reymond.
 - Galvani and van Leeuwenhoek.
 - Golgi and Cajal.
 - Bell and Magendie.

[◀ Add Question Here](#)

[Modify](#) [Remove](#)

Question 26 **Multiple Choice** **0 points**

Question The effects of electrical stimulation of the nervous system were observed by

- Answer**
- Descartes.
 - ✓ Galvani and du Bois-Reymond.
 - Golgi and Cajal.
 - van Leeuwenhoek.

◀ [Add Question Here](#)

[Modify](#) | [Remove](#)

Question 27 **Multiple Choice** **0 points**

Question The Neuron Doctrine pertains to the

- Answer**
- use of electricity by neurons in communication.
 - localization of language to the left hemisphere.
 - ✓ separate pathways used for processing sensory and motor information
 - nervous system as a collection of separate cells.

◀ [Add Question Here](#)

[Modify](#) | [Remove](#)

Question 28 **Multiple Choice** **0 points**

Question The Neuron Doctrine was proposed by

- Answer**
- Descartes.
 - Bell and Magendie.
 - Camillo Golgi.
 - ✓ Santiago Ramón y Cajal.

◀ [Add Question Here](#)

[Modify](#) | [Remove](#)

Question 29 **Multiple Choice** **0 points**

Question Which of the following made the Neuron Doctrine possible?

- Answer** ✓
- the light microscope and the use of stains in histology
 - the ability to apply electricity through wires
 - fewer restrictions on animal research
 - fewer restrictions on human dissection

◀ [Add Question Here](#)

[Modify](#) | [Remove](#)

Question 30 **Multiple Choice** **0 points**

Question We know today that Santiago Ramón y Cajal's Neuron Doctrine is true, but what theory competed with the Neuron doctrine as recently as the early 1900s?

- Answer**
- the Bell-Magendie law
 - ✓ Camillo Golgi's view of the nervous system as an interconnected network
 - Luigi Galvani's proposal that nerves communicate using electricity
 - phrenology

◀ [Add Question Here](#)

[Modify](#) | [Remove](#)

Question 31 **Multiple Choice** **0 points**

Question Phrenology is a

- Answer**
- technique for staining neural tissue.
 - ✓ misguided attempt to correlate personality with bumps in the skull.
 - method for imaging brain activity.
 - method for fixing neural tissue.

◀ [Add Question Here](#)

[Modify](#) | [Remove](#)

Question 32 **Multiple Choice** **0 points**

Question Gall and Spurzheim are responsible for

- Answer**
- the Neuron Doctrine.
 - establishing the electrical nature of neural communication.
 - demonstrating that sensory and motor information uses separate pathways.
 - ✓ phrenology.

◀ [Add Question Here](#)

[Modify](#) | [Remove](#)

Question 33 **Multiple Choice** **0 points**

Question Although phrenology is mostly wrong, what did phrenologists get right about the nervous system?

- Answer**
- The ventricles play a major role in the transmission of messages in the brain.
 - Sensation and movement have separate pathways.
 - Neurons communicate using electrical signals.
 - ✓ Some functions can be localized in the brain.

◀ [Add Question Here](#)

[Modify](#) | [Remove](#)

Question 34 **Multiple Choice** **0 points**

Question Localization of function in the brain became established in large part due to the work of

- Answer**
- Descartes.
 - Santiago Ramón y Cajal.
 - ✓ Broca, Fritsch, and Hitzig.
 - Hughlings Jackson.

◀ [Add Question Here](#)

[Modify](#) | [Remove](#)

Question 35 **Multiple Choice** **0 points**

Question The localization of language functions in the brain was observed by

- Answer**
- Paul Broca.
 - Santiago Ramón y Cajal.
 - Fritsch and Hitzig.
 - Camillo Golgi.

[◀ Add Question Here](#)

[Modify](#) | [Remove](#)

Question 36 **Multiple Choice** **0 points**

Question Experiments in which the motor cortex of dogs was stimulated electrically were carried out by

- Answer**
- Paul Broca.
 - Santiago Ramón y Cajal.
 - Fritsch and Hitzig.
 - Camillo Golgi.

[◀ Add Question Here](#)

[Modify](#) | [Remove](#)

Question 37 **Multiple Choice** **0 points**

Question The work of Fritz and Hitzig provided further evidence for the

- Answer**
- Neuron Doctrine.
 - accuracy phenomenon.
 - localization of some functions in the brain.
 - Bell-Magendie law.

[◀ Add Question Here](#)

[Modify](#) | [Remove](#)

Question 38 **Multiple Choice** **0 points**

Question Hughlings Jackson is best known for

- Answer**
- demonstrating the localization of language in the brain.
 - the Neuron Doctrine.
 - mind-body dualism.
 - viewing the nervous system as a hierarchy.

[◀ Add Question Here](#)

[Modify](#) | [Remove](#)

Question 39 **Multiple Choice** **0 points**

Question Dr. Jones argues that higher levels of the brain inhibit aggressive impulses originating in lower levels of the brain. It is likely that Dr. Jones has been most directly influenced in her thinking by the work of

- Answer**
- Santiago Ramón y Cajal
 - John Hughlings Jackson.
 - Franz Josef Gall.
 - Luigi Galvani.

[◀ Add Question Here](#)

[Modify](#) | [Remove](#)

Question 40 **Multiple Choice** **0 points**

Question The term "synapse," meaning the point of communication between two neurons, was first used by

- Answer**
- Charles Sherrington.
 - Santiago Ramón y Cajal.
 - John Hughlings Jackson.
 - Otto Loewi.

[◀ Add Question Here](#)

[Modify](#) | [Remove](#)

Question 41 **Multiple Choice** **0 points**

Question The existence of chemical signaling at the synapse was first demonstrated by

- Answer**
- Charles Sherrington.
 - Santiago Ramón y Cajal.
 - John Hughlings-Jackson.
 - Otto Loewi.

[◀ Add Question Here](#)

[Modify](#) | [Remove](#)

Question 42 **Multiple Choice** **0 points**

Question The study of microscopic structures and tissues is known as

- Answer**
- histology.
 - phrenology.
 - staining.
 - imaging.

[◀ Add Question Here](#)

[Modify](#) | [Remove](#)

Question 43 **Multiple Choice** **0 points**

Question "Fixing" tissue to be viewed refers to

- Answer**
- slicing tissue into thin slices.
 - preserving the tissue by freezing or by the use of formalin.
 - mounting tissue on slides.
 - deciding which tissue to observe.

[◀ Add Question Here](#)

[Modify](#) | [Remove](#)

Question 44 **Multiple Choice** **0 points**

Question A microtome is a

- Answer**
- stain.
 - fixative.
 - ✓ machine used to slice tissue.
 - type of microscope.

◀ [Add Question Here](#)

[Modify](#) | [Remove](#)

Question 45 **Multiple Choice** **0 points**

Question If you want to observe a small number of cells in detail, it would be best to use the

- Answer**
- ✓ Golgi silver stain.
 - Nissl stain.
 - myelin stain.
 - horseradish peroxidase stain.

◀ [Add Question Here](#)

[Modify](#) | [Remove](#)

Question 46 **Multiple Choice** **0 points**

Question If you want to identify clusters of cell bodies in a sample of tissue, it would be best to use the

- Answer**
- Golgi silver stain.
 - ✓ Nissl stain.
 - myelin stain.
 - horseradish peroxidase stain.

◀ [Add Question Here](#)

[Modify](#) | [Remove](#)

Question 47 **Multiple Choice** **0 points**

Question To observe fiber pathways within a sample of tissue, it would be best to use the

- Answer**
- Golgi silver stain.
 - Nissl stain.
 - ✓ myelin stain.
 - antibody stain.

◀ [Add Question Here](#)

[Modify](#) | [Remove](#)

Question 48 **Multiple Choice** **0 points**

Question If you want to locate a pathway's point of origin, it would be best to use the

- Answer**
- Golgi silver stain.
 - Nissl stain.
 - myelin stain.
 - ✓ horseradish peroxidase stain.

◀ [Add Question Here](#)

[Modify](#) | [Remove](#)

Question 49 **Multiple Choice** **0 points**

Question Particular proteins in cells can be identified using

- Answer**
- the Golgi silver stain.
 - the Nissl stain.
 - horseradish peroxidase stain.
 - ✓ antibodies.

◀ [Add Question Here](#)

[Modify](#) | [Remove](#)

Question 50 **Multiple Choice** **0 points**

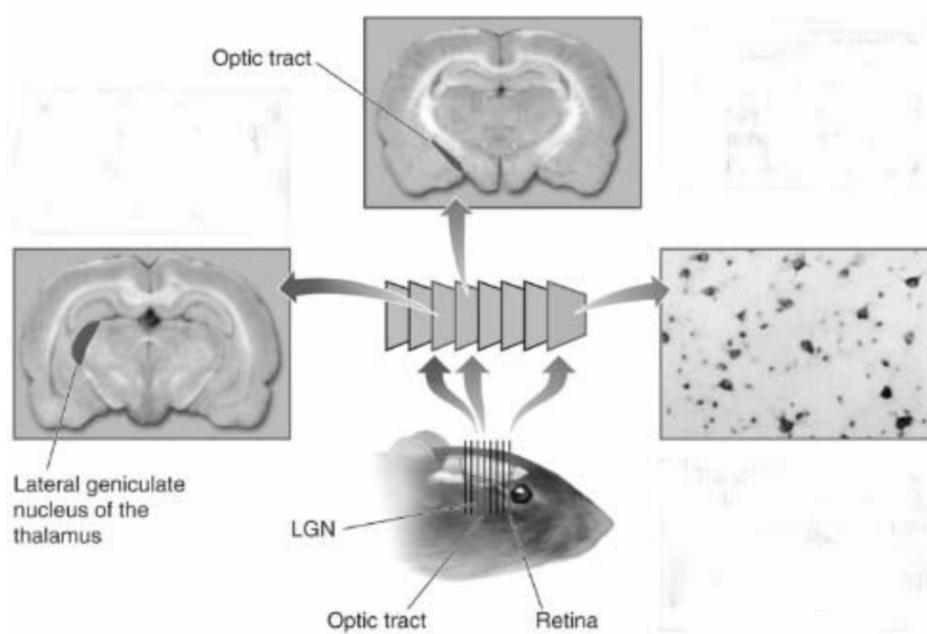
Question A researcher is interested in discovering if one part of the brain, the orbitofrontal cortex, has connections with another part of the brain, the amygdala. Which of the following experimental methods would be the most appropriate for this purpose?

- Answer**
- ✓ Inject horseradish peroxidase into a rat's orbitofrontal cortex and then see if cells in the amygdala are stained.
 - Inject a human volunteer with a radioactive glucose and see what part of his brain is active while viewing an emotionally charged set of pictures using a PET scan.
 - Look at a human brain with fMRI to see if the orbitofrontal cortex and amygdala are active at the same times.
 - Stimulate the orbitofrontal cortex of a human volunteer during neurosurgery.

◀ [Add Question Here](#)

[Modify](#) | [Remove](#)

Question 51 **Multiple Choice** **0 points**



Question

This illustration demonstrates the use of

Answer

- the Golgi stain.
- the horseradish peroxidase stain.
- microdialysis.
- magnetoencephalography.

Correct Feedback

(see Figure 1.6)

Incorrect Feedback

(see Figure 1.6)

[Add Question Here](#)

[Modify](#) | [Remove](#)

Question 52

Multiple Choice

0 points

Question Electron microscopes are capable of magnifications up to _____ times.

Answer

- 1000
- 100,000
- 1 million
- 10 million

[Add Question Here](#)

[Modify](#) | [Remove](#)

Question 53

Multiple Choice

0 points

Question Structures at the synapse may be viewed with

Answer

- a light microscope.
- an electron microscope.
- the naked eye.
- a CT scanner.

[Add Question Here](#)

[Modify](#) | [Remove](#)

Question 54

Multiple Choice

0 points

Question Examination of a body after death is known as

Answer

- autopsy.
- phrenology.
- histology.
- fixing.

[Add Question Here](#)

[Modify](#) | [Remove](#)

Question 55

Multiple Choice

0 points

Question In his study of the biology of sexual orientation, Simon LeVay used the method of

Answer

- phrenology.
- autopsy.
- CT scanning.
- fMRI.

[Add Question Here](#)

[Modify](#) | [Remove](#)

Question 56

Multiple Choice

0 points

Question Computerized tomography (CT) scanning is based on

Answer

- the gamma camera.
- histology.
- X-ray technology.
- magnetism.

[Add Question Here](#)

[Modify](#) | [Remove](#)

Question 57

Multiple Choice

0 points

Question Modern computerized tomography (CT) images differ from earlier versions in that they

Answer

- no longer use X-rays.
- are safer for the participant.
- can be used to construct 3-D images.
- can be used to measure activity in a structure.

[Add Question Here](#)

[Modify](#) | [Remove](#)

Question 58

Multiple Choice

0 points

Question Positron emission tomography (PET) scans were made possible by the development of

Answer the gamma camera.
 X-rays.
 powerful magnets.
 histology techniques.

[◀ Add Question Here](#)

[Modify](#) [Remove](#)

Question 59 **Multiple Choice** **0 points**

Question Positron emission tomography (PET) scans

Answer expose the participant to X-rays.
 expose the participant to strong magnets.
 require the participant to ingest or inject radioactive substances.
 require the participant to wear a helmet containing sensors.

[◀ Add Question Here](#)

[Modify](#) [Remove](#)

Question 60 **Multiple Choice** **0 points**

Question In positron emission tomography (PET) scans, colors are assigned that reflect the

Answer density of tissue in a particular area.
 response of the cells in a particular area to magnetism.
 magnetic output of an area of the brain.
 amount of activity in a particular area of the brain.

[◀ Add Question Here](#)

[Modify](#) [Remove](#)

Question 61 **Multiple Choice** **0 points**

Question A red area in a positron emission tomography (PET) scan typically indicates that the area is

Answer currently very active.
 currently moderately active.
 currently slightly active.
 not currently active at all.

[◀ Add Question Here](#)

[Modify](#) [Remove](#)

Question 62 **Multiple Choice** **0 points**

Question Magnetic resonance imaging (MRI) technology is based on

Answer magnetism.
 radioactivity.
 X-rays.
 the gamma camera.

[◀ Add Question Here](#)

[Modify](#) [Remove](#)

Question 63 **Multiple Choice** **0 points**

Question In magnetic resonance imaging (MRI) technology, magnetism is used to align

Answer oxygen atoms.
 hydrogen atoms.
 glucose molecules.
 water molecules.

[◀ Add Question Here](#)

[Modify](#) [Remove](#)

Question 64 **Multiple Choice** **0 points**

Question In magnetic resonance imaging (MRI) technology, the area of the body to be imaged is exposed to

Answer X-rays.
 radioactivity.
 radio frequency (RF) pulses.
 a gamma camera.

[◀ Add Question Here](#)

[Modify](#) [Remove](#)

Question 65 **Multiple Choice** **0 points**

Question Functional magnetic resonance imaging (fMRI) requires

Answer stronger magnets than those used in MRI.
 the injection of radioactive substances into the participant.
 larger numbers of gamma cameras than in MRI.
 multiple images taken in a short period of time.

[◀ Add Question Here](#)

[Modify](#) [Remove](#)

Question 66 **Multiple Choice** **0 points**

Question In magnetic resonance imaging technologies, we use the term “voxel” to refer to

Answer the rate at which atoms spin.
 the strength of the magnets being used.
 a small area of tissue to be assigned a pixel of appropriate color or darkness.
 a gamma ray released during the breakdown of a radioactive tracer.

[◀ Add Question Here](#)

[Modify](#) [Remove](#)

Question 67 **Multiple Choice** **0 points**

Question Functional magnetic resonance imaging takes advantage of the fact that compared with less active neurons, more active neurons require greater amounts of

- Answer**
- hydrogen.
 - oxygen.
 - gamma radiation.
 - magnetism.

[◀ Add Question Here](#)

Question 68 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

Question Which of the following contemporary technologies was previewed by nineteenth century physiologist Angelo Mosso's work with patients who had head injuries?

- Answer**
- positron emission tomography (PET)
 - computerized tomography (CT)
 - electroencephalography
 - functional magnetic resonance imaging (fMRI)

[◀ Add Question Here](#)

Question 69 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

Question Imaging techniques that provide information regarding brain *function* include

- Answer**
- computerized tomography (CT) and functional magnetic resonance imaging (fMRI).
 - computerized tomography (CT) and positron emission tomography (PET).
 - functional magnetic resonance imaging (fMRI) and positron emission tomography (PET).
 - computerized tomography (CT) and magnetoencephalography (MEG).

[◀ Add Question Here](#)

Question 70 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

Question Hemoglobin's magnetic properties change when it is

- Answer**
- combined with oxygen.
 - combined with glucose.
 - bombarded with gamma rays.
 - exposed to X-rays.

[◀ Add Question Here](#)

Question 71 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

Question The BOLD effect is important in which of the following technologies?

- Answer**
- positron emission tomography (PET)
 - computerized tomography (CT)
 - electroencephalography (EEG)
 - functional magnetic resonance imaging (fMRI)

[◀ Add Question Here](#)

Question 72 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

Question Compared with magnetic resonance imaging (MRI), functional magnetic resonance imaging (fMRI) provides

- Answer**
- more information about brain activity.
 - better structural resolution.
 - fewer side effects.
 - more economical imaging.

[◀ Add Question Here](#)

Question 73 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

Question Although his ability to speak is otherwise normal, a stroke patient is having difficulty naming common everyday objects, such as tools. In order to determine which part of the brain is functioning abnormally, his doctor may use which of the following techniques?

- Answer**
- Inject the patient with horseradish peroxidase and look at his brain during an autopsy.
 - Do a CT scan on the brain to see what area is not functioning.
 - Use functional magnetic resonance imaging (fMRI) to compare the activity of the brains of the patient and normal volunteers when they are presented with pictures of various tools.
 - During neurosurgery on the patient, stimulate his brain to see what part is not functioning.

[◀ Add Question Here](#)

Question 74 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

Question Naomi Eisenberger and her colleagues are interested in whether or not brain activity correlates with feelings of social rejection. If you were advising Dr. Eisenberger, which technology would you recommend for her study?

- Answer**
- positron emission tomography (PET)
 - computerized tomography (CT)
 - electroencephalography (EEG)
 - functional magnetic resonance imaging (fMRI)

[◀ Add Question Here](#)

Question 75 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

Question The first electroencephalogram (EEG) recordings were made by

- Answer**
- Phelps and Hoffman.
 - Wilhelm Röntgen.
 - Hans Berger.
 - Hounsfield and Cormack.

Question 76	Multiple Choice	0 points	Add Question Here
	<p>Question A field potential is the</p> <p>Answer</p> <ul style="list-style-type: none"> <input type="checkbox"/> recorded activity of single cells. <input checked="" type="checkbox"/> recorded activity of multiple cells. <input type="checkbox"/> strength of the magnets used in magnetic resonance imaging (MRI). <input type="checkbox"/> interference produced by bones and membranes during the electroencephalography (EEG) recording. 		
			Add Question Here
Question 77	Multiple Choice	0 points	Add Question Here
	<p>Question Electroencephalography (EEG) recordings</p> <p>Answer</p> <ul style="list-style-type: none"> <input type="checkbox"/> are not affected by the bones and membranes covering the brain. <input checked="" type="checkbox"/> primarily reflect the activity of cells near the surface of the brain. <input type="checkbox"/> primarily reflect the activity of cells most distant from the surface of the brain. <input type="checkbox"/> reflect the activity of all cells of the brain equally. 		
			Add Question Here
Question 78	Multiple Choice	0 points	Add Question Here
	<p>Question Traditionally, electroencephalography (EEG) is most commonly used to study</p> <p>Answer</p> <ul style="list-style-type: none"> <input type="checkbox"/> emotion. <input type="checkbox"/> psychopathology. <input checked="" type="checkbox"/> states of consciousness and seizures. <input type="checkbox"/> learning and memory. 		
			Add Question Here
Question 79	Multiple Choice	0 points	Add Question Here
	<p>Question Quantitative analysis of modern electroencephalography (EEG) recordings can be used to</p> <p>Answer</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> construct 3-D maps of brain activity. <input type="checkbox"/> generate high resolution images of brain structures. <input type="checkbox"/> assess learning and memory processes. <input type="checkbox"/> track the utilization of glucose and oxygen by the brain. 		
			Add Question Here
Question 80	Multiple Choice	0 points	Add Question Here
	<p>Question Following a serious car accident, Joan fell into a coma. Her doctors are most likely to assess her progress using which of the following technologies?</p> <p>Answer</p> <ul style="list-style-type: none"> <input type="checkbox"/> positron emission tomography (PET) <input type="checkbox"/> computerized tomography (CT) <input checked="" type="checkbox"/> electroencephalography (EEG) <input type="checkbox"/> functional magnetic resonance imaging (fMRI) 		
			Add Question Here
Question 81	Multiple Choice	0 points	Add Question Here
	<p>Question Which of the following technologies allowed O'Craven and Kanwisher (2000) to determine whether a participant was imagining a face or a building?</p> <p>Answer</p> <ul style="list-style-type: none"> <input type="checkbox"/> positron emission tomography (PET) <input type="checkbox"/> magnetoencephalography (MEG) <input checked="" type="checkbox"/> functional magnetic resonance imaging (fMRI) <input type="checkbox"/> repeated transcranial magnetic stimulation (rTMS) 		
			Add Question Here
Question 82	Multiple Choice	0 points	Add Question Here
	<p>Question Future law enforcement personnel are most likely to be able to use which of the following technologies in order to assess whether a person is being truthful or not?</p> <p>Answer</p> <ul style="list-style-type: none"> <input type="checkbox"/> positron emission tomography (PET) <input type="checkbox"/> magnetoencephalography (MEG) <input checked="" type="checkbox"/> functional magnetic resonance imaging (fMRI) <input type="checkbox"/> repeated transcranial magnetic stimulation (rTMS) 		
			Add Question Here
Question 83	Multiple Choice	0 points	Add Question Here
	<p>Question Jeremy's physician suspects that he might have attention deficit hyperactivity disorder. Which of the following technologies is the physician likely to use to determine a diagnosis?</p> <p>Answer</p> <ul style="list-style-type: none"> <input type="checkbox"/> positron emission tomography (PET) <input type="checkbox"/> computerized tomography (CT) <input checked="" type="checkbox"/> electroencephalography (EEG) <input type="checkbox"/> functional magnetic resonance imaging (fMRI) 		
			Add Question Here
Question 84	Multiple Choice	0 points	Add Question Here
	<p>Question The analysis of evoked potentials is based on</p>		

- Answer** computerized tomography (CT).
 positron emission tomography (PET).
 functional magnetic resonance imaging (fMRI).
 ✓ electroencephalography (EEG).

◀ [Add Question Here](#)

Question 85 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

Question A technique that is often used to determine whether or not a stimulus has been processed by the brain is

- Answer** ✓ the analysis of evoked potentials.
 the recording of electrical activity from the brain during surgery.
 positron emission tomography (PET).
 magnetic resonance imaging (MRI).

◀ [Add Question Here](#)

Question 86 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

Question Matthew's parents are concerned about the possibility that he might have either a hearing loss or autism, as he has not learned to speak and is not responsive to their efforts to speak to him. Which of the following technologies might assist Matthew's physician in making an accurate diagnosis?

- Answer** ✓ evoked potentials
 electroencephalography
 computerized tomography (CT)
 functional magnetic resonance imaging (fMRI)

◀ [Add Question Here](#)

Question 87 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

Question Magnetoencephalography (MEG) involves the

- Answer** analysis of evoked potentials.
 recording of electrical activity from the brain during surgery.
 ✓ recording of the magnetic output of the brain.
 recording of electrical activity from the brain through electrodes placed on the scalp.

◀ [Add Question Here](#)

Question 88 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

Question The scalp, skull bones, and membranes covering the brain block

- Answer** ✓ the brain's electrical output more than its magnetic output.
 the brain's magnetic output more than its electrical output.
 the brain's magnetic and electrical output equally.
 neither the brain's electrical nor its magnetic output.

◀ [Add Question Here](#)

Question 89 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

Question Magnetoencephalography (MEG) recordings may be taken

- Answer** at the same rate as positron emission tomography (PET) and functional magnetic resonance imaging (fMRI) scans.
 faster than positron emission tomography (PET), but more slowly than functional magnetic resonance imaging (fMRI) scans.
 faster than functional magnetic resonance imaging (fMRI), but more slowly than positron emission tomography (PET) scans.
 ✓ faster than both positron emission tomography (PET) and functional magnetic resonance imaging (fMRI) scans.

◀ [Add Question Here](#)

Question 90 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

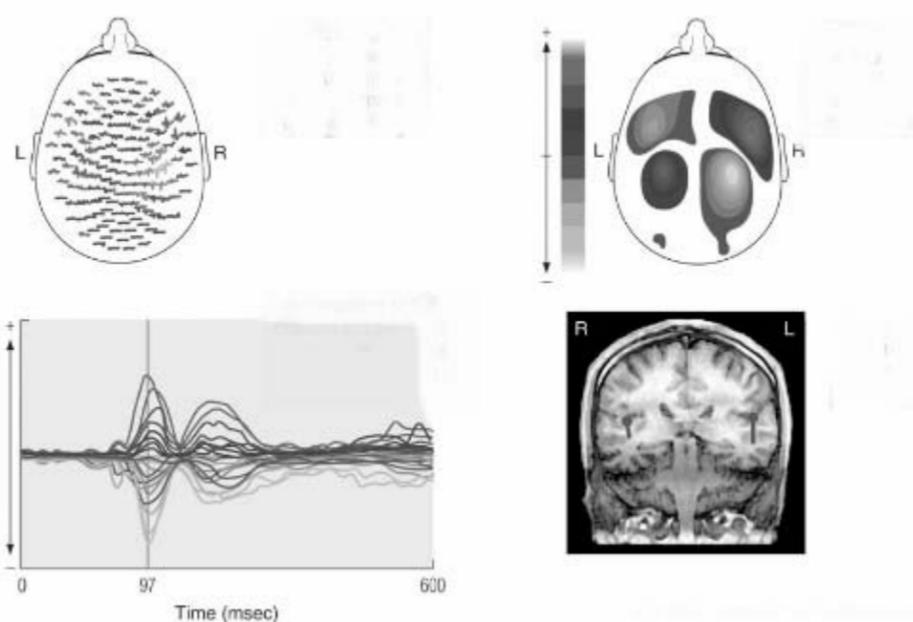
Question Why is magnetoencephalography (MEG) more useful than functional magnetic resonance imaging (fMRI) for studying participants' responses to quiet sounds?

- Answer** MEG equipment is much cheaper and easier to use than fMRI equipment.
 ✓ The magnets used in fMRI are very noisy, blocking the ability to sense quiet sounds.
 MEG recordings of brain activity must be taken more slowly than fMRI images, allowing a more accurate assessment of brain activity.
 Neither of these technologies is suitable for assessing participants' responses to sound.

◀ [Add Question Here](#)

Question 91 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

**Question**

The technology illustrated in this figure allows researchers to

Answer

- research the magnetic output of the brain.
- research the electrical output of the brain.
- identify areas of the brain that have been lesioned.
- identify the effects of magnetic stimulation of the brain.

Correct Feedback (see Figure 1.13b)

Incorrect Feedback (see Figure 1.13b)

[Add Question Here](#)

[Modify](#) [Remove](#)

Question 92

Multiple Choice

0 points

Question SQUID sensors are used in

Answer

- positron emission tomography (PET) scans.
- functional magnetic resonance imaging (fMRI).
- magnetoencephalography (MEG).
- electroencephalography (EEG).

[Add Question Here](#)

[Modify](#) [Remove](#)

Question 93

Multiple Choice

0 points

Question Magnetoencephalography (MEG) results are usually superimposed on images obtained by

Answer

- computerized tomography (CT) scans.
- positron emission tomography (PET) scans.
- magnetic resonance imaging (MRI).
- electroencephalography (EEG).

[Add Question Here](#)

[Modify](#) [Remove](#)

Question 94

Multiple Choice

0 points

Question Which of the following technologies are most useful in analyzing brain activity during a seizure?

Answer

- computerized tomography and positron emission tomography
- positron emission tomography and functional magnetic resonance imaging
- magnetoencephalography and electroencephalography
- electroencephalography and positron emission tomography

[Add Question Here](#)

[Modify](#) [Remove](#)

Question 95

Multiple Choice

0 points

Question Single cell recording has been used successfully to

Answer

- distinguish between hearing impaired children and children with autism.
- identify areas of the brain that participate in particular emotions.
- identify the stimuli that activate particular parts of the visual cortex.
- track the progress of patients withdrawing from addictive drugs.

[Add Question Here](#)

[Modify](#) [Remove](#)

Question 96

Multiple Choice

0 points

Question In order to study the visual cortex of animals, Mountcastle, Hubel, and Wiesel used which of the following technologies?

Answer

- electroencephalography
- evoked potentials
- magnetoencephalography
- single cell recordings

[Add Question Here](#)

[Modify](#) [Remove](#)

Question 97

Multiple Choice

0 points

Question The purpose of stimulation research is to

Answer

- identify stimuli that activate a particular part of the brain.
- identify the function of a part of the brain.
- observe individual ion channels in the membranes of neurons.
- observe the activity of a particular part of the brain.

[Add Question Here](#)

[Modify](#) [Remove](#)

Question 98

Multiple Choice

0 points

Question Wilder Penfield and Robert Heath used which of the following techniques with their human participants?

- Answer**
- patch clamps
 - magnetoencephalography (MEG)
 - ✓ electrical stimulation
 - single cell recording

◀ [Add Question Here](#)

[Modify](#) | [Remove](#)

Question 99 **Multiple Choice** **0 points**

Question In order to do a single cell recording, electrode tips

- Answer**
- contained in SQUIDS must be positioned over the area of interest.
 - must be positioned on the surface of the skull bones.
 - ✓ must be surgically implanted.
 - must be arrayed on the surface of the scalp.

◀ [Add Question Here](#)

[Modify](#) | [Remove](#)

Question 100 **Multiple Choice** **0 points**

Question Why is it common practice to conduct neurosurgery under local anesthesia instead of general anesthesia?

- Answer** ✓
- The brain itself has no pain reception, and it is useful for the neurosurgeon to be able to converse with a patient during a procedure.
 - General anesthesia is more expensive, so this is a good way to save money on medical care.
 - The person undergoing a neurosurgical procedure is unable to tell which type of anesthesia is being used.
 - General anesthesia does not last as long as local anesthesia, so is not suitable for lengthy procedures.

◀ [Add Question Here](#)

[Modify](#) | [Remove](#)

Question 101 **Multiple Choice** **0 points**

Question In addition to the more contemporary researchers discussed in the section on brain stimulation, which 19th century researcher(s) also used electrical brain stimulation to map functions of the cerebral cortex?

- Answer** ✓
- Fritsch and Hitzig
 - Luigi Galvani
 - Santiago Ramón y Cajal
 - Otto Loewi

◀ [Add Question Here](#)

[Modify](#) | [Remove](#)

Question 102 **Multiple Choice** **0 points**

Question Using electrical brain stimulation, researchers have located areas of the brain that appear to be involved with

- Answer**
- negative emotions, such as pain, but not positive emotions, such as pleasure.
 - positive emotions, such as pleasure, but not negative emotions, such as pain.
 - ✓ both positive emotions and negative emotions.
 - neither positive nor negative emotions.

◀ [Add Question Here](#)

[Modify](#) | [Remove](#)

Question 103 **Multiple Choice** **0 points**

Question In separate investigations, Robert Heath and Olds and Milner demonstrated that

- Answer** ✓
- electrical stimulation of the brain has no apparent behavioral effects.
 - animals and people will self-administer electrical stimulation to certain parts of the brain.
 - animals, but not humans, respond positively to electrical stimulation applied to certain parts of the brain.
 - surgically implanting stimulating electrodes in animals and people usually results in coma or death.

◀ [Add Question Here](#)

[Modify](#) | [Remove](#)

Question 104 **Multiple Choice** **0 points**

Question Olds and Milner investigated brain structures responsible for reward by using

- Answer**
- patch clamps.
 - single cell recordings.
 - lesions.
 - ✓ electrical stimulation.

◀ [Add Question Here](#)

[Modify](#) | [Remove](#)

Question 105 **Multiple Choice** **0 points**

Question José Delgado controlled a fighting bull by using

- Answer**
- lesions.
 - ✓ electrical stimulation.
 - magnetoencephalography (MEG).
 - patch clamps.

◀ [Add Question Here](#)

[Modify](#) | [Remove](#)

Question 106 **Multiple Choice** **0 points**

Question Repeated transcranial magnetic stimulation (rTMS) _____ activity in the underlying cortex?

- Answer**
- decreases
 - increases
 - does not affect
 - ✓ can either increase or decrease

◀ [Add Question Here](#)

[Modify](#) | [Remove](#)

Question 107 **Multiple Choice** **0 points**

Question Repeated transcranial magnetic stimulation (rTMS) appears to be a promising treatment for which of the following psychological disorders?

- Answer**
- schizophrenia and depression
 - attention deficit hyperactivity disorder and autism
 - autism and schizophrenia
 - depression and attention deficit hyperactivity disorder

[◀ Add Question Here](#)

Question 108 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

Question Which technology has been shown to produce temporary savant abilities, such as the ability to perform complicated mental calculations quickly, in healthy participants?

- Answer**
- magnetoencephalography (MEG)
 - repeated transcranial magnetic stimulation (rTMS)
 - functional magnetic resonance imaging (fMRI)
 - No known technology has the ability to produce these effects.

[◀ Add Question Here](#)

Question 109 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

Question The analysis of lesions allows researchers to

- Answer**
- identify stimuli that activate a particular part of the brain.
 - identify the function of a part of the brain.
 - observe individual ion channels in the membranes of neurons.
 - observe the activity of a particular part of the brain.

[◀ Add Question Here](#)

Question 110 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

Question Naturally occurring lesions were interpreted by

- Answer**
- Paul Broca.
 - Simon LeVay.
 - Hounsfield and Cormack.
 - Fritsch and Hitzig.

[◀ Add Question Here](#)

Question 111 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

Question The use of experimentally induced lesions was introduced by

- Answer**
- Paul Broca.
 - Pierre Flourens.
 - Camillo Golgi.
 - Galvani.

[◀ Add Question Here](#)

Question 112 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

Question Animals will gain up to two to three times their normal weight when the

- Answer**
- lateral hypothalamus is lesioned.
 - lateral hypothalamus is stimulated.
 - ventromedial hypothalamus is lesioned.
 - ventromedial hypothalamus is stimulated.

[◀ Add Question Here](#)

Question 113 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

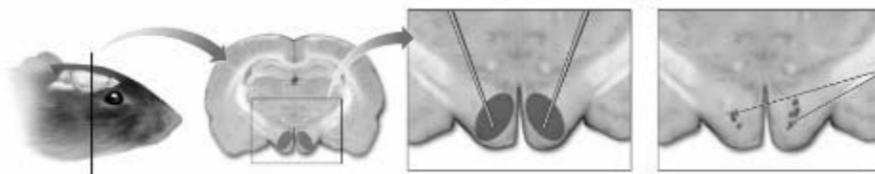
Question Colin's schizophrenia is responding well to his medication, but he continues to be bothered by auditory hallucinations, in which voices continually criticize his actions. Colin's physician might try which of the following technologies in order to provide him with relief from these troubling symptoms?

- Answer**
- repeated transcranial magnetic stimulation
 - lesions of the auditory cortex
 - electrical stimulation of the auditory cortex
 - gene therapy

[◀ Add Question Here](#)

Question 114 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)



Question The purpose of conducting research using the technique illustrated in this figure is to

- Answer**
- discover the boundaries of the target area of the brain.
 - identify the chemicals present in the target area of the brain.
 - identify the function of the target area of the brain.
 - discover the connections to and from the target area of the brain.

Correct Feedback (see Figure 1.17)

Incorrect Feedback (see Figure 1.17)

[◀ Add Question Here](#)

- Question 115 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** When a large area of brain is deliberately damaged, we refer to the result as a(n)
- Answer**
- magnetoencephalogram (MEG).
 - microdialysis analysis.
 - lesion.
 - ✓ ablation.
- [Add Question Here](#)
- Question 116 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** Permanent lesions are usually produced by applying
- Answer**
- cold or chemicals.
 - heat or cold.
 - ✓ heat or chemicals.
 - magnetism or cold.
- [Add Question Here](#)
- Question 117 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** Reversible lesions are produced by applying
- Answer**
- heat.
 - ✓ cold.
 - chemicals.
 - heat or cold.
- [Add Question Here](#)
- Question 118 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** Both lesions and electrical brain stimulation allow scientists to
- Answer**
- observe the activity of a particular part of the brain.
 - observe the biochemical environment in a particular area of the brain.
 - ✓ observe the functions of particular parts of the brain.
 - identify stimuli that normally activate a particular part of the brain.
- [Add Question Here](#)
- Question 119 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** Dr. Wilson is interested in the functions of a nucleus found in the hypothalamus of rats. Which of the following technologies would you recommend to Dr. Wilson for answering this question?
- Answer**
- repeated transcranial magnetic stimulation
 - functional magnetic resonance imaging
 - single cell recording
 - ✓ lesions and electrical brain stimulation
- [Add Question Here](#)
- Question 120 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** Most chemicals in the blood supply
- Answer**
- enter the brain more easily than other organs.
 - ✓ are less likely to enter the brain than other organs.
 - enter the brain as easily as other organs.
 - are unable to enter the brain or other organs.
- [Add Question Here](#)
- Question 121 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** One of the challenges associated with the successful use of chemotherapy for treating brain tumors is the fact that
- Answer**
- no known chemotherapy agents are effective against the types of tumors that arise in the brain.
 - no chemicals are ever able to pass from the blood supply to the brain.
 - ✓ many circulating chemicals are not able to enter the brain.
 - chemicals introduced to the brain do not pass through neural membranes.
- [Add Question Here](#)
- Question 122 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** Psychoactive drugs
- Answer**
- and their behavioral effects are assessed most frequently by researchers using microdialysis techniques.
 - are only effective if administered through injection.
 - are unable to move from the blood supply into the brain, which is why people use methods like smoking and chewing to administer drugs.
 - ✓ move from the blood supply into the brain quite easily.
- [Add Question Here](#)
- Question 123 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** Researchers interested in the effects of a drug on an awake, freely moving animal are most likely to
- Answer**
- ✓ use surgically implanted micropipettes to administer precise amounts of the drug directly to the brain.
 - use microdialysis.
 - allow the animal to inhale, eat, or chew substances that contain precise amounts of the drug.
 - sample the chemicals that are active in a precise location in the brain.
- [Add Question Here](#)

- Question 124 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** Microdialysis is used to
- Answer** assess the chemicals present in a very small area of the brain.
 apply chemicals directly to the brain.
 produce lesions.
 identify the function of a small area of the brain.
- [Add Question Here](#)
- Question 125 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** Fraternal twins typically have about _____ percent of their genes in common.
- Answer** 25
 50
 75
 100
- [Add Question Here](#)
- Question 126 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** Identical twins typically have about _____ percent of their genes in common.
- Answer** 25
 50
 75
 100
- [Add Question Here](#)
- Question 127 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** Fraternal twins share
- Answer** more genes than non-twin siblings but fewer genes than identical twins.
 about the same number of genes as non-twin siblings.
 about the same number of genes as identical twins.
 fewer genes than non-twin siblings.
- [Add Question Here](#)
- Question 128 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** Compared with non-twin siblings, twins
- Answer** share less similar prenatal and postnatal environments.
 share more similar prenatal and postnatal environments
 are less affected by their prenatal and postnatal environments.
 share more similar prenatal, but less similar postnatal environments.
- [Add Question Here](#)
- Question 129 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** If we say that bipolar disorder has a concordance rate of 85 percent, we mean that
- Answer** 85 percent of the time bipolar disorder is the result of genetic influences.
 if one monozygotic (identical) twin has bipolar disorder, his or her twin has an 85 percent chance of being diagnosed with the disorder as well.
 85 percent of the time, bipolar disorder is caused by genetic variables.
 a parent with bipolar disorder has an 85 percent chance of passing the disorder to his or her children.
- [Add Question Here](#)
- Question 130 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** If a trait were primarily influenced by genetic variables, we would expect to see
- Answer** adopted children who are more similar to their biological parents in the trait than to their adoptive parents.
 adopted children who are more similar to their adoptive parents in the trait than to their biological parents.
 strong similarities between adoptive and biological parents.
 strong similarities between adoptive children and their adoptive siblings.
- [Add Question Here](#)
- Question 131 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** If the concordance rate for alcoholism were 50 percent among identical twins, which of the following would be true?
- Answer** If you inherit the gene that encodes alcoholism, you will become an alcoholic.
 If there is no alcoholism in your family, you will never become an alcoholic.
 If your father is an alcoholic, you will not become an alcoholic as long as he is not involved in raising you.
 If your twin is an alcoholic, you have an increased chance of becoming an alcoholic, but ultimately whether you become an alcoholic depends on the choices you make.
- [Add Question Here](#)
- Question 132 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** What is the best definition of heritability?
- Answer** the amount of an individual's phenotype that is due to genetic influences
 the proportion of traits in an individual that are not influenced by environmental variables
 the amount of variability in a population that is due to genetics
 the likelihood that a parent will pass on a particular trait to his or her offspring
- [Add Question Here](#)

- Question 133 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** The similarities that are often seen among families that adopt children might have which of the following effects on analyses of the heritability of traits?
- Answer**
- exaggeration of environmental influences
 - environmental influences that cannot be observed
 - underestimation of genetic influences
 - ✓ exaggeration of genetic influences
- [Add Question Here](#)
- Question 134 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** Dr. Campos is studying variations of intelligence among children living in a very affluent community, in which most parents are college-educated and schools are highly ranked. It is likely that using this relatively homogeneous group of participants will distort Dr. Campos' results by
- Answer**
- ✓ exaggerating genetic influences on intelligence.
 - causing her to underestimate genetic influences on intelligence.
 - exaggerating environmental influences on intelligence.
 - exaggerating individual differences in intelligence.
- [Add Question Here](#)
- Question 135 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** A knockout gene is a
- Answer**
- gene that is missing in an organism.
 - ✓ defective gene that is substituted into a chromosome of an organism.
 - gene in which a mutation has occurred.
 - gene that produces disease or death.
- [Add Question Here](#)
- Question 136 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** Mice that lack the gene that normally produces the protein leptin become very obese. Which of the following statements is the best interpretation of this phenomenon?
- Answer**
- The leptin gene is probably responsible for our current obesity epidemic.
 - ✓ Leptin plays an important role in the regulation of appetite.
 - The leptin gene appears to be a gene for obesity.
 - This experiment does not provide enough information for drawing conclusions.
- [Add Question Here](#)
- Question 137 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** "Pluripotent" stem cells are derived from
- Answer**
- adult stem cells.
 - umbilical cord blood.
 - ✓ blastocysts.
 - cells from the cornea of the eye.
- [Add Question Here](#)
- Question 138 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** A disadvantage of embryonic stem cells is that they
- Answer**
- ✓ can provoke immune responses in the recipient.
 - can divide a very limited number of times.
 - can differentiate into a very limited number of tissue types, most of which are not very useful in treating illness and injury.
 - usually carry too many mutations to be practical in treating injury and illness.
- [Add Question Here](#)
- Question 139 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** Adult stem cells differ from embryonic stem cells in that adult stem cells
- Answer**
- can differentiate into more types of tissue.
 - ✓ can divide fewer times.
 - are more likely to provoke an immune response in the tissue recipient.
 - are the subject of more intense ethical debate.
- [Add Question Here](#)
- Question 140 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** The "Common Rule" refers to
- Answer**
- federal restrictions on stem cell research.
 - laws limiting the use of university research facilities by private corporations.
 - ✓ a set of ethical standards for research shared by 17 federal agencies.
 - Hippocrates' statement that physicians should "do no harm."
- [Add Question Here](#)
- Question 141 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** University review boards
- Answer**
- supervise the use of humans, but not animals, in research.
 - are composed of research faculty with expertise in the areas under study.
 - supervise the use of animals, but not humans, in research.
 - ✓ include a faculty member from a "non-science" discipline.
- [Add Question Here](#)

- Question 142 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** Federal ethical guidelines apply to
- Answer** all research conducted in the United States.
- projects and institutions receiving federal support only.
 - research using humans, but not animals.
 - research conducted by faculty, but not by students.
- [Add Question Here](#)
- Question 143 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** As part of your senior thesis, you want to study the effects of advertising on young children during Saturday morning cartoons. Which of the following is the first step you will need to take?
- Answer** Get informed consent from the group of children you will be using as subjects.
- Obtain approval for your project from the human participants institutional review board at the university you are attending.
 - Recruit students from a local school to be subjects.
 - Find a place for all the children to watch television together on a Saturday morning.
- [Add Question Here](#)
- Question 144 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** In a recent survey of biological and medical journals, what percentage of lead authors were found to have a financial interest in the corporation sponsoring the research?
- Answer**
- 10
 - 25
 - 33
 - 50
- [Add Question Here](#)
- Question 145 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** A survey of the scientific literature found that research sponsored by pharmaceutical companies was
- Answer** more likely than research supported by the federal government to report that a new drug is superior to existing drugs.
- less likely than research supported by the federal government to report that a new drug is superior to existing drugs.
 - about as likely as research supported by the federal government to report that a new drug is superior to existing drugs.
 - more difficult to publish than research supported by the federal government.
- [Add Question Here](#)
- Question 146 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** The death of teenager Jesse Gelsinger, who volunteered to undergo gene therapy for his genetic disorder
- Answer** would have happened soon anyway due to his illness.
- resulted from the virus used to deliver his gene therapy.
 - could not have been prevented by a more complete informed consent form.
 - did not result in any sanctions to the researchers or their institution, because they had followed all standard ethical protocols.
- [Add Question Here](#)
- Question 147 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** Ethical standards for the use of human subjects require researchers to
- Answer** clearly identify each participant by name.
- never use deception.
 - avoid coercion.
 - ensure that participants understand that they can't quit once the experiment begins.
- [Add Question Here](#)
- Question 148 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** A researcher wants to study fetal alcohol syndrome, a set of deficits in the offspring caused by maternal drinking during pregnancy, by randomly assigning pregnant mice to alcohol and no alcohol groups. Which of the following is the **best** reason for using mice instead of people for this study?
- Answer** Mice consume larger amounts of alcohol relative to their body weight than humans do.
- You don't need to have the approval of an ethics committee in order to study mice.
 - Although ethical standards for animal research still apply, some research considered completely unethical for humans can be conducted with animals.
 - Mice are so much like people there's no reason to study people.
- [Add Question Here](#)
- Question 149 **Multiple Choice** **0 points** [Modify](#) [Remove](#)
- Question** You want to do an experiment in which human participants are asked to taste a particular substance so you can determine if the participants have very sensitive taste buds. Your plan is to not tell the participants in advance that the substance may taste really bad and then to describe how well participants can taste the substance by the faces they make. What can you expect your university's human subjects committee to say?
- Answer** You must find some other way to measure how well participants can taste the substance because you must tell them what may happen and get informed consent.
- They will probably suggest you do the experiment with animals.
 - They will probably approve the experiment because there is no other way to measure how well participants can taste the substance.
 - You can do the experiment, but you must debrief participants when it is done.
- [Add Question Here](#)
- Question 150 **Multiple Choice** **0 points** [Modify](#) [Remove](#)

Question Ethical standards for the use of animal subjects require researchers to

Answer demonstrate the necessity of using animals in their project.
 use only those techniques that do no permanent harm to their animals.
 not use animals under any circumstances.
 discuss their proposal with on-campus peers, but not necessarily with members of the community.

[◀ Add Question Here](#)

Question 151 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

Question A group of scientists at your university wants to investigate rates of abuse of prescription drugs, like Oxycontin, among students living in dorms by using an online questionnaire. This research proposal is likely to raise ethical concerns about

Answer obtaining truly informed consent.
 maintaining student privacy.
 not knowing whether a participant is underage.
 All of the above.

[◀ Add Question Here](#)

Question 152 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

Question The use of embryonic stem cells for research

Answer has been outlawed by all nations.
 has been outlawed completely in many nations, including Germany and France, but not in the United States.
 is against the law in the United States, but not in other countries.
 is legal in all nations.

[◀ Add Question Here](#)

Question 153 **Multiple Choice** **0 points**

[Modify](#) [Remove](#)

Question During the administration of George W. Bush, federal funding in the United States was available for research using

Answer embryonic stem cell lines from embryos destroyed prior to the Bush administration.
 adult stem cells, but not embryonic stem cells.
 all sources of stem cells.
 embryonic stem cells, but not adult stem cells.

[◀ Add Question Here](#)

Question 154 **True/False** **0 points**

[Modify](#) [Remove](#)

Question True or false? Biological psychology can be defined as the branch of psychology that studies the biological foundations of behavior, emotions, and mental processes.

Answer True
 False

[◀ Add Question Here](#)

Question 155 **True/False** **0 points**

[Modify](#) [Remove](#)

Question True or false? Santiago Ramón y Cajal is best known for demonstrating that neurons generate electrical signals.

Answer True
 False

[◀ Add Question Here](#)

Question 156 **True/False** **0 points**

[Modify](#) [Remove](#)

Question True or false? The pathways of the brain can be studied using either myelin stains or horseradish peroxidase.

Answer True
 False

[◀ Add Question Here](#)

Question 157 **True/False** **0 points**

[Modify](#) [Remove](#)

Question True or false? Questions about the activity of the brain can be investigated using positron emission tomography (PET) and functional magnetic resonance imaging (fMRI).

Answer True
 False

[◀ Add Question Here](#)

Question 158 **True/False** **0 points**

[Modify](#) [Remove](#)

Question True or false? Electroencephalograms (EEG) represent the activity of all cortical neurons, regardless of their distance from any of the recording electrodes.

Answer True
 False

[◀ Add Question Here](#)

Question 159 **True/False** **0 points**

[Modify](#) [Remove](#)

Question True or false? The use of repeated transcranial magnetic stimulation (rTMS) always reduces the activity of cortical cells located beneath the stimulation site.

Answer True
 False

[◀ Add Question Here](#)

Question 160 **True/False** **0 points**

[Modify](#) [Remove](#)

Question True or false? Microdialysis can be used to assess the chemicals present in a very small area of the brain.

Answer True
 False

[Add Question Here](#)

Question 161 **True/False** **0 points**

[Modify](#) [Remove](#)

Question True or false? If the concordance rate for a psychological disorder is 60 percent, this means that genetics determine 60 percent of a person's risk and the environment contributes the other 40 percent.

Answer True
 False

[Add Question Here](#)

Question 162 **True/False** **0 points**

[Modify](#) [Remove](#)

Question True or false? The only current source of stem cells is embryonic stem cells, which are usually at the blastocyst stage of development.

Answer True
 False

[Add Question Here](#)

Question 163 **True/False** **0 points**

[Modify](#) [Remove](#)

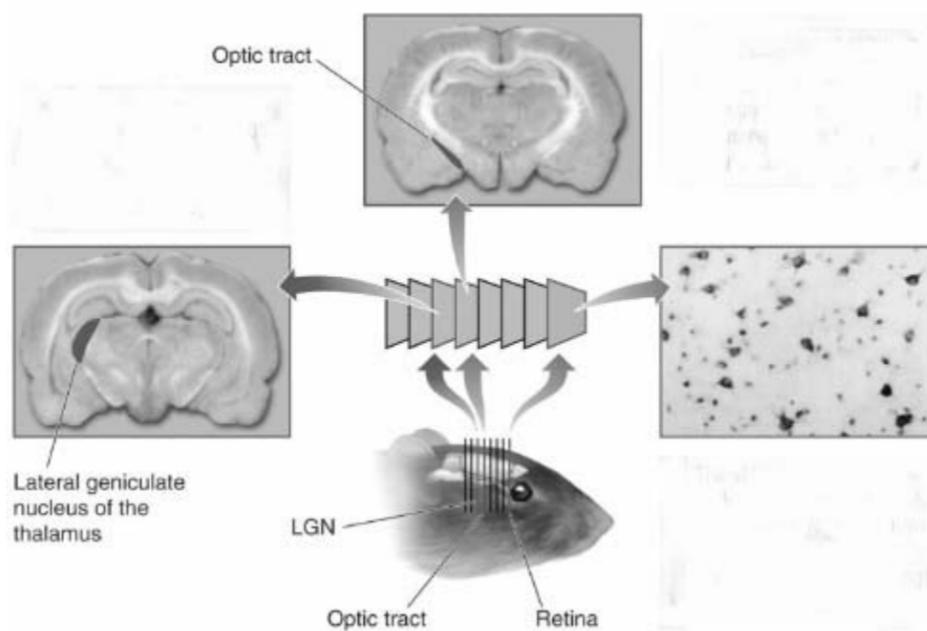
Question True or false? Federal guidelines for using human participants in research apply to all organizations and individuals receiving federal funding, but not private corporations.

Answer True
 False

[Add Question Here](#)

Question 164 **Fill in the Blank** **0 points**

[Modify](#) [Remove](#)



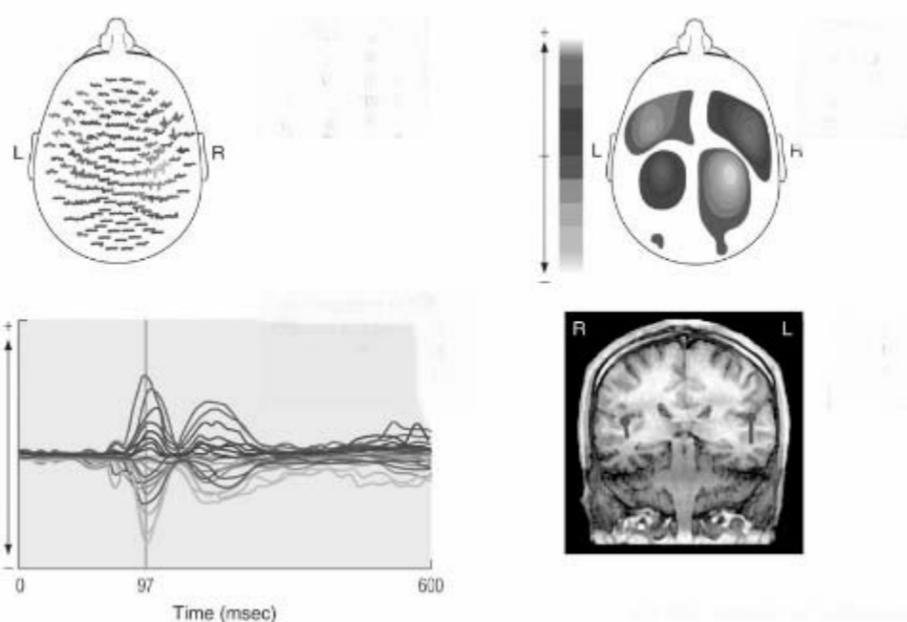
Question In the procedure illustrated here, stain is first injected into the _____, and then it travels to cell bodies located in the _____.

Answer lateral geniculate nucleus of the thalamus, retina (see Figure 1.6)

[Add Question Here](#)

Question 165 **Fill in the Blank** **0 points**

[Modify](#) [Remove](#)



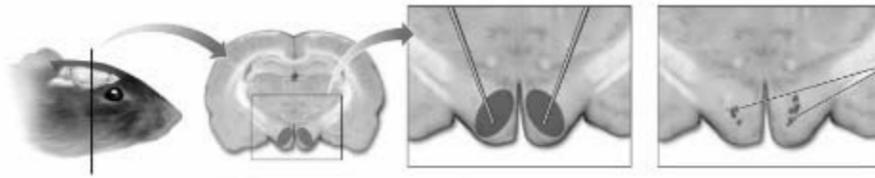
Question The image in the lower left of this figure combines information from _____ with information from _____ imaging.

Answer magnetoencephalography (MEG), magnetic resonance MEG, magnetic resonance (see Figure 1.13b)

[Add Question Here](#)

Question 166 **Fill in the Blank** **0 points**

[Modify](#) [Remove](#)

**Question**

In this illustration, a lesion is being produced in the rat's _____.

Answer

ventromedial hypothalamus (VMH)
ventromedial hypothalamus
VMH
(see Figure 1.17)

[Add Question Here](#)

Question 167 **Essay**

0 points

[Modify](#) [Remove](#)

Question Provide one example of a circular relationship between biology and behavior.

Answer The textbook provides the example of testosterone, which may produce more aggressive behavior (biology leads to behavior) or be reduced by watching your favorite sports team lose (behavior leads to biology). Reduced serotonin levels may lead to depression (biology leads to behavior), but we also believe that rumination and other depressive cognitions can lead to reduced serotonin levels (behavior leads to biology).

[Add Question Here](#)

Question 168 **Essay**

0 points

[Modify](#) [Remove](#)

Question In what ways were the phrenologists right and in what other ways were they terribly wrong about the workings of the brain?

Answer Bumps on the head have nothing to do with the underlying activity of the brain, but phrenologists were correct in assuming that some functions were localized in the brain.

[Add Question Here](#)

Question 169 **Essay**

0 points

[Modify](#) [Remove](#)

Question Why did it take so long for neuroscientists to accept the Neuron Doctrine?

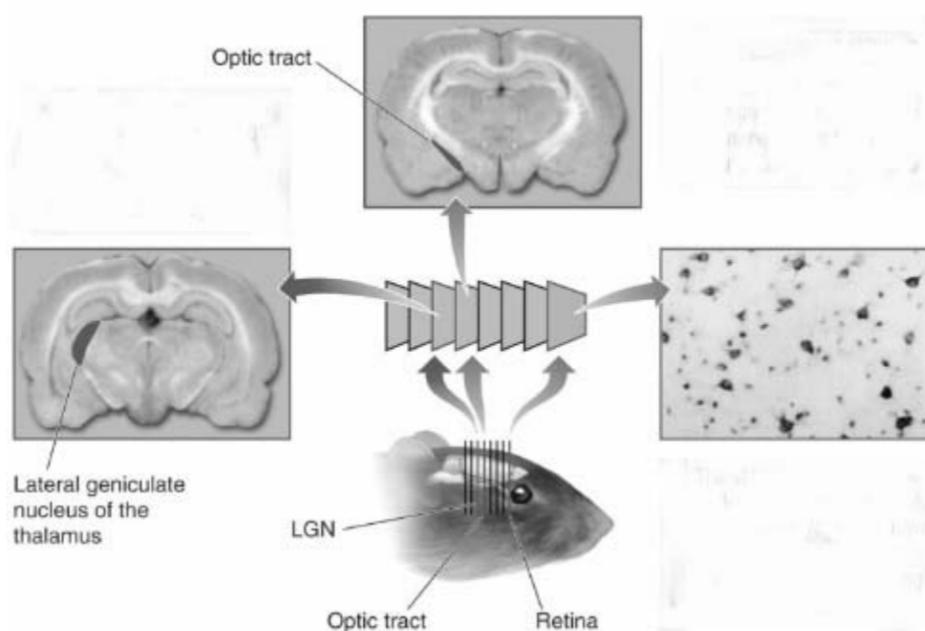
Answer Neural tissue proved to be very difficult to observe using the light microscope. Neural tissue, even fixed, is transparent, and required the development of appropriate staining before it could be observed clearly. In addition, many neurons have very long processes that do not fit neatly in microscope slides, leading to the belief that the brain consisted of a vast interconnected network as opposed to single cells.

[Add Question Here](#)

Question 170 **Essay**

0 points

[Modify](#) [Remove](#)

**Question**

This figure illustrates one of the histology methods commonly used in biological psychology. In 30 or 40 words, describe this procedure and its purpose.

Answer

(see caption of Figure 1.6)

[Add Question Here](#)

Question 171 **Essay**

0 points

[Modify](#) [Remove](#)

Question What makes it possible to assess activity levels using PET scans and fMRI?

Answer Busy neurons require more glucose and oxygen than neurons not currently involved in major processing. PET and fMRI are able to track the utilization of these substances by different parts of the brain.

[Add Question Here](#)

Question 172 **Essay**

0 points

[Modify](#) [Remove](#)

Question What is one advantage of magnetoencephalography (MEG) over electroencephalography (EEG)?

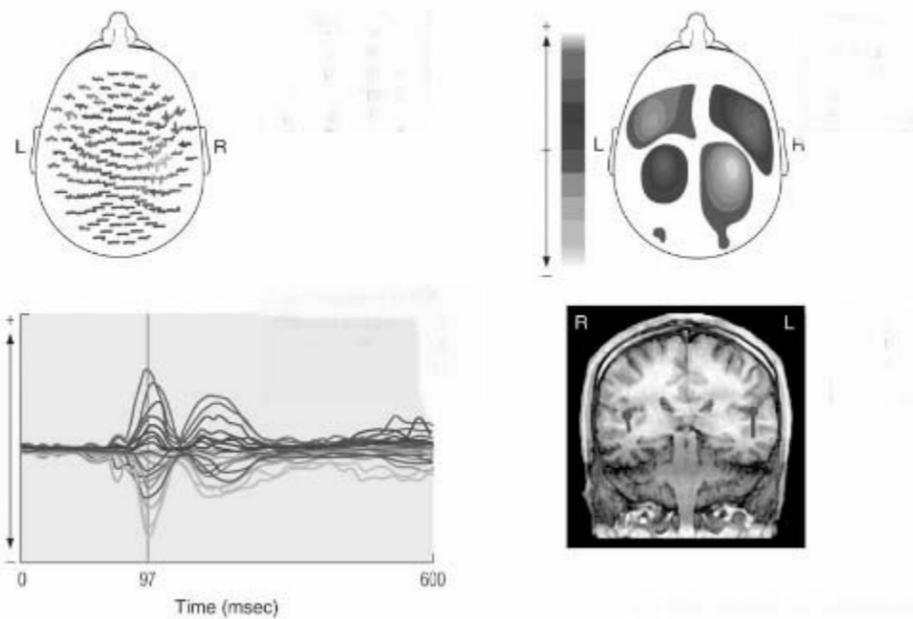
Answer Because the skull bones block most of the electricity but little of the magnetism produced by the brain, the EEG gives only an approximation of brain activity compared to the accuracy and localization provided by MEG.

[Add Question Here](#)

Question 173 **Essay**

0 points

[Modify](#) [Remove](#)

**Question**

This figure illustrates one of the recording methodologies used in biological psychology. Briefly describe what each of the four images in this figure represents.

1. (top-left) _____
2. (top-right) _____
3. (bottom-left) _____
4. (bottom-right) _____

Answer (see labels of Figure 1.13b)

[Add Question Here](#)

Question 174 **Essay**

0 points

[Modify](#) [Remove](#)

Question Why must we be very careful about interpreting the results of lesion and stimulation experiments?

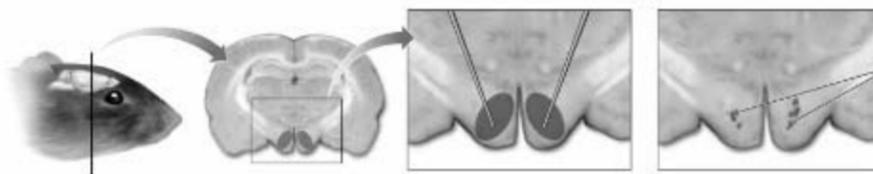
Answer In both lesion and stimulation experiments, we affect not only the target area of the brain, but any pathways traveling through the area of interest. Consequently, our lesions or stimulation might change behavior due to changes in the target area or in any other area with which the target area communicates.

[Add Question Here](#)

Question 175 **Essay**

0 points

[Modify](#) [Remove](#)

**Question**

Briefly (in 30 to 40 words) describe the lesion process depicted in this figure and its impact on the rat's behavior.

Answer (see Figure 1.17)

[Add Question Here](#)

Question 176 **Essay**

0 points

[Modify](#) [Remove](#)

Question Why is it sometimes necessary to use surgically implanted pipettes to deliver drugs to the brain directly?

Answer The brain, compared to many other organs, is unusually well protected. Many substances in the blood circulate through the brain without being able to exit into the neural tissue.

[Add Question Here](#)

Question 177 **Essay**

0 points

[Modify](#) [Remove](#)

Question What does it mean to say when we say the heritability of a trait is 80 percent?

Answer Heritability is the amount of difference between two populations that can be accounted for by their genes. If the heritability of a trait is 80 percent, this means that 80 percent of the variability seen between two groups is likely to be due to genetics.

[Add Question Here](#)

Question 178 **Essay**

0 points

[Modify](#) [Remove](#)

Question What are the strengths and weaknesses of adult stem cells relative to embryonic stem cells?

Answer Adult stem cells are less flexible (pluripotent) than embryonic cells and they lack the immortality of embryonic cells. However, when returned to their source organism, they do not provoke an immune response, whereas embryonic cells would do so.

[Add Question Here](#)

Question 179 **Essay**

0 points

[Modify](#) [Remove](#)

Question Identify two of the ethical concerns raised by the case of Jesse Gelsinger, the teen volunteer who died in a gene therapy trial.

Answer It appears that the investigators in the Jesse Gelsinger case had a financial conflict of interest in the case and that there were serious omissions in the informed consent process.

[Add Question Here](#)

Question 180 **Essay**

0 points

[Modify](#) [Remove](#)

Question The history of biological psychology is in many ways the history of technical advances. Which three technological advances do you think were the most significant and why?

Answer Answer not provided

[Add Question Here](#)

Question 181 **Essay**

0 points

[Modify](#) [Remove](#)

Question Adoptive families have been found to share many features in common. How is this likely to impact measures of trait heritability that compare children with their biological and adoptive parents and siblings?

Answer Answer not provided

[Add Question Here](#)

Question 182 **Essay**

0 points

[Modify](#) | [Remove](#)

Question Animal research continues to be very controversial. Describe the protections that are currently in place, and describe their strengths and weaknesses.

Answer

Answer not provided

[◀ Add Question Here](#)

OK