

Chapter 1: Introduction

Multiple-Choice Questions

1.1-1. _____ is the belief that natural phenomena such as winds and tides are caused by spirits.

- a. Animism
- b. Dualism
- c. Monism
- d. Spiritualism
- e. Interactionism

Difficulty: 1

Question ID: 1.1-1

Page Ref: 2

Topic: Animism

Skill: Factual

Answer: a. Animism

1.1-2. The notion that natural phenomena can be explained by spirits is termed

- a. anarchy.
- b. dualism.
- c. animism.
- d. theological evolution.
- e. symbolic representation.

Difficulty: 1

Question ID: 1.1-2

Page Ref: 2

Topic: Animism

Skill: Conceptual

Answer: c. animism.

1.1-3. A scientist who holds a monism philosophy would be comfortable with which of the following statements?

- a. The universe is a mental construction.
- b. Both hemispheres of the brain work together to form the mind.
- c. The mind is not composed of matter.
- d. Everything is made of matter and energy.
- e. The body is physical whereas the mind is spiritual.

Difficulty: 3

Question ID: 1.1-3

Page Ref: 3

Topic: Mind-Body Problem

Skill: Applied

Answer: d. Everything is made of matter and energy.

1.1-4. _____ is the belief that the mind and body are separate entities.

- a. Contralateral neglect
- b. Monism
- c. Blindsight
- d. Dualism
- e. Animism

Difficulty: 1
Question ID: 1.1-4
Page Ref: 3
Topic: Mind-Body Problem
Skill: Factual
Answer: d. Dualism

1.1-5. Which of the following statements is consistent with the monistic view of the mind-body problem?

- a. Energy makes up everything.
- b. The body can influence the mind through the actions of the pineal gland.
- c. The mind is spiritual, while the body is made from matter.
- d. The mind can exist apart from the body.
- e. The mind is generated through the physical actions of the brain.

Difficulty: 3
Question ID: 1.1-5
Page Ref: 3
Topic: Mind-Body Problem
Skill: Applied
Answer: e. The mind is generated through the physical actions of the brain.

1.1-6. The mind-body problem

- a. asks about the nature of the mind and the body.
- b. was originally posed by philosophers.
- c. has not been solved.
- d. usually involves deciding between a monistic or a dualistic view.
- e. All of the above are correct.

Difficulty: 2
Question ID: 1.1-6
Page Ref: 3
Topic: Mind-Body Problem
Skill: Conceptual
Answer: e. All of the above are correct.

1.1-7. Which of the following is consistent with the meaning of "consciousness"?

- a. Being awake.
- b. The capacity to detect stimuli from the outside world.
- c. The ability to control the movement of our body.
- d. The ability to communicate our thoughts and feelings to others.
- e. All of the above are correct.

Difficulty: 2
Question ID: 1.1-7
Page Ref: 3
Topic: Consciousness
Skill: Conceptual
Answer: e. All of the above are correct.

1.1-8. **Which of the following is consistent with the proposition that consciousness is a physiological function?**

- a. Consumption of ethanol changes our ability to communicate.
- b. Damage to the brain can alter our self-awareness.
- c. Inhalation of certain gases renders us unaware of the environment.
- d. Our awareness levels change with the activity of our brains.
- e. All of the above are correct.

Difficulty: 3

Question ID: 1.1-8

Page Ref: 3

Topic: Consciousness

Skill: Conceptual

Answer: e. All of the above are correct.

1.1-9. **The text author suggests that a key aspect of human self-awareness is related to**

- a. our ability to communicate with others using language.
- b. our ability to sleep at night.
- c. our ability to use tools.
- d. the observation that brain damage can alter our awareness.
- e. the fact that humans have a sense of humor.

Difficulty: 2

Question ID: 1.1-9

Page Ref: 3

Topic: Consciousness

Skill: Conceptual

Answer: a. our ability to communicate with others using language.

1.1-10. **The phenomenon of "blindsight" suggests that**

- a. only one visual system exists in the human brain.
- b. consciousness is localized to some but not all parts of the brain.
- c. dualism is the correct solution to the mind-body problem.
- d. brain damage can alter somatic awareness.
- e. the presence of one visual system in primate brain.

Difficulty: 2

Question ID: 1.1-10

Page Ref: 4

Topic: Blindsight

Skill: Conceptual

Answer: b. consciousness is localized to some but not all parts of the brain.

1.1-11. **The ability of Natalie J.'s grandfather to touch the end of a cane held by his doctor after becoming blind after a stroke**

- a. was made possible because his color visual system was intact.
- b. was possible because his corpus callosum was intact.
- c. was made possible because his primitive visual system was intact.
- d. is due to chance.
- e. occurred because the stroke did not involve the right hemisphere.

Difficulty: 3

Question ID: 1.1-11

Page Ref: 4

Topic: Blindsight

Skill: Conceptual

Answer: c. was made possible because his primitive visual system was intact.

1.1-12. **Blindsight suggests that some parts of the brain may play a special role in**

- a. tactile sensation.
- b. eye movements.
- c. sleep-wake cycles.
- d. reproductive behavior.
- e. consciousness.

Difficulty: 1
Question ID: 1.1-12
Page Ref: 4
Topic: Blindsight
Skill: Factual
Answer: e. consciousness.

1.1-13. **Which of the following is true of blindsight?**

- a. The primitive visual system is key for consciousness.
- b. Reaching is only guided by the conscious visual system.
- c. People are acutely aware of their blindspots.
- d. Humans appear to have dual visual systems.
- e. The right hemisphere is important for language function.

Difficulty: 3
Question ID: 1.1-13
Page Ref: 5
Topic: Blindsight
Skill: Conceptual
Answer: d. Humans appear to have dual visual systems.

1.1-14. **Transection of the _____ may be useful for reducing the symptoms of _____.**

- a. corpus callosum; epilepsy
- b. visual system; blindsight
- c. stria terminalis; amnesia
- d. parietal cortex; unilateral neglect
- e. corpus callosum; anxiety

Difficulty: 3
Question ID: 1.1-14
Page Ref: 4-5
Topic: Split-Brain
Skill: Factual
Answer: a. corpus callosum; epilepsy

1.1-15. **Epilepsy can be controlled by**

- a. damaging portions of the parietal cortex.
- b. damaging portions of the pineal gland.
- c. drugs that stimulate the firing of neurons.
- d. electrical stimulation of certain brain regions.
- e. cutting the corpus callosum.

Difficulty: 3
Question ID: 1.1-15
Page Ref: 5
Topic: Split-Brain
Skill: Applied
Answer: e. cutting the corpus callosum.

1.1-16. Which of the following neurological conditions involves the excessive firing of nerve cells in the brain?

- a. hemorrhagic stroke
- b. hydrocephalus
- c. hematoma
- d. epilepsy
- e. myasthenia gravis

Difficulty: 1

Question ID: 1.1-16

Page Ref: 5

Topic: Split-Brain

Skill: Factual

Answer: d. epilepsy

1.1-17. A person whose corpus callosum has been sectioned would be expected to show which of the following?

- a. Increased frequency of epileptic seizures.
- b. Coordinated control of his right and left hands.
- c. Reading an interesting book held in his right hand.
- d. Making obscene gestures with his left hand.
- e. None of the above are correct.

Difficulty: 3

Question ID: 1.1-17

Page Ref: 6

Topic: Split-Brain

Skill: Applied

Answer: d. Making obscene gestures with his left hand.

1.1-18. An important function of the corpus callosum is to

- a. channel sensory information to the thalamic relay centers.
- b. control the movement of the hands and feet.
- c. interconnect the cerebral hemispheres.
- d. modulate the release of neurohormones from the pituitary.
- e. dampen neural firing in the cortex.

Difficulty: 2

Question ID: 1.1-18

Page Ref: 6

Topic: Split-Brain

Skill: Conceptual

Answer: c. interconnect the cerebral hemispheres.

1.1-19. Surgical sectioning of the corpus callosum is intended to

- a. reduce swelling of the brain in hydroencephalus patients.
- b. minimize long-term memories of traumatic events.
- c. promote the development of the memory systems
- d. reduce the severity of epileptic seizures.
- e. None of the above are correct.

Difficulty: 1

Question ID: 1.1-19

Page Ref: 6

Topic: Split-Brain

Skill: Factual

Answer: d. reduce the severity of epileptic seizures.

1.1-20. **In most persons, a key function of the left hemisphere**

- a. is to control the left side of the body.
- b. is the control of language.
- c. relates to spatial perception.
- d. is to integrate the tactile information from the left side of the body.
- e. is to receive olfactory information from the right nostril.

Difficulty: 3

Question ID: 1.1-20

Page Ref: 6

Topic: Split-Brain

Skill: Conceptual

Answer: b. is the control of language.

1.1-21. **Imagine that your corpus callosum has been sectioned to minimize your epileptic seizures. Suppose that your left nostril is plugged with cotton and that a fresh rose has been placed near your right nostril. Under these conditions, the rose would**

- a. generate a sensory message in your left hemisphere.
- b. generate a sensory message in both hemispheres.
- c. lead you to report the smell of a flower.
- d. not generate a verbal report of this experience.
- e. A and C are correct.

Difficulty: 3

Question ID: 1.1-21

Page Ref: 6

Topic: Split-Brain

Skill: Applied

Answer: d. not generate a verbal report of this experience.

1.1-22. **A key function of the right hemisphere relates to the**

- a. motor control of the left side of the body.
- b. processing of olfactory signals from the left nostril.
- c. processing of tactile signals from the right side of the body.
- d. motor control of the right side of the body.
- e. capacity to control feeding, fighting, fleeing, and mating.

Difficulty: 2

Question ID: 1.1-22

Page Ref: 6

Topic: Split-Brain

Skill: Factual

Answer: a. motor control of the left side of the body.

1.1-23. **Imagine that your corpus callosum has been sectioned to minimize your epileptic seizures. Suppose that your left nostril is plugged with cotton and that a fresh rose has been placed near your right nostril. Under these conditions, you would be most likely to**

- a. experience a sensory message in your left hemisphere.
- b. use your right hand to choose a hidden plastic flower.
- c. report that you smell a flower.
- d. use your left hand to select a hidden plastic flower.
- e. use your right hand to select a pine tree.

Difficulty: 3

Question ID: 1.1-23

Page Ref: 6

Topic: Split-Brain

Skill: Applied

Answer: d. use your left hand to select a hidden plastic flower.

1.1-24. **Unilateral neglect involves**

- a. the inability to notice objects placed to the right side of a person.
- b. damage to the left hemisphere of the brain.
- c. the inability to notice objects placed to the left side of a person.
- d. damage to the amygdala and hippocampus.
- e. impaired speech production.

Difficulty: 2

Question ID: 1.1-24

Page Ref: 7

Topic: Unilateral Neglect

Skill: Factual

Answer: c. the inability to notice objects placed to the left side of a person.

1.1-25. **A person who sustains damage within her right parietal cortex would be expected to**

- a. show impaired perception of tactile stimuli on the left side of the body.
- b. experience altered emotional expression.
- c. be better at planning motor actions involving her hands.
- d. experience unilateral neglect.
- e. experience impaired speech production.

Difficulty: 3

Question ID: 1.1-25

Page Ref: 7

Topic: Unilateral Neglect

Skill: Applied

Answer: d. experience unilateral neglect.

1.1-26. **A person suffering from unilateral neglect would be unable to**

- a. attend to the right half of a stimulus.
- b. state whether the right half of a stimulus is the same as the left half of the stimulus.
- c. accurately label the hours of a clock drawing.
- d. recognize both hands as their own.
- e. describe parts of a well known landmark.

Difficulty: 2

Question ID: 1.1-26

Page Ref: 7-8

Topic: Unilateral Neglect

Skill: Conceptual

Answer: c. accurately label the hours of a clock drawing.

1.1-27. **The author of the first psychology text was _____ and the text was entitled _____.**

- a. Rene Descartes; *A Primer of Psychology*
- b. Sigmund Freud; *Dream Interpretation After Cocaine Ingestion*
- c. Neil Carlson; *Foundations of Physiological Psychology*
- d. Luigi Galvani; *Frog Legs and Psychologic Function*
- e. Wilhelm Wundt; *Principles of Physiological Psychology*

Difficulty: 2

Question ID: 1.1-27

Page Ref: 9

Topic: Nature of Physiological Psychology

Skill: Factual

Answer: e. Wilhelm Wundt; *Principles of Physiological Psychology*

1.1-28. **Your textbook author asserts that the primary function of the brain is to**

- a. allow us to appreciate art and music.
- b. allow for the experience of emotions.
- c. control movement.
- d. create memories of our experiences.
- e. interpret our sensory experiences.

Difficulty: 2

Question ID: 1.1-28

Page Ref: 9

Topic: Nature of Physiological Psychology

Skill: Factual

Answer: c. control movement.

1.1-29. _____ **represent explanations used by all scientists.**

- a. Generalizations
- b. Inductions
- c. Isolations
- d. Syllogisms
- e. Rationalizations

Difficulty: 1

Question ID: 1.1-29

Page Ref: 10

Topic: Goals of Research

Skill: Conceptual

Answer: a. Generalizations

1.1-30. **Imagine that you now experience such an overly strong fear of dogs that you refuse to leave your house for fear of encountering a dog. A learning theorist would suggest that the roots of your fear can be attributed to classical conditioning in which you associated the sight and sound of a dog with some aversive experience. This type of explanation would involve the process of**

- a. rationalization.
- b. pseudoscience.
- c. reductionism.
- d. generalization.
- e. dualism.

Difficulty: 2
Question ID: 1.1-30
Page Ref: 10
Topic: Goals of Research
Skill: Applied
Answer: d. generalization.

1.1-31. **A scientific explanation of a complex phenomenon that is cast in terms of a simpler one involves the process of**

- a. rationalization.
- b. falsification.
- c. generalization.
- d. deduction.
- e. reduction.

Difficulty: 2
Question ID: 1.1-31
Page Ref: 10
Topic: Goals of Research
Skill: Factual
Answer: e. reduction.

1.1-32. **You notice that your roommate has difficulty sleeping after consuming heavily caffeinated drinks. You know from your courses that caffeine can stimulate brain neurons that produce arousal (and that such arousal disturbs sleep function). If you suggest to your roommate that his/ner insomnia reflects the action of caffeine on brain function, your explanation would involve the process of**

- a. reduction.
- b. superordinate causality.
- c. generalization.
- d. induction.
- e. None of the above are correct.

Difficulty: 3
Question ID: 1.1-32
Page Ref: 10
Topic: Goals of Research
Skill: Applied
Answer: a. reduction.

1.1-33. Which of the following statements is NOT correct?

- a. Reduction uses simple processes to explain complicated ones.
- b. The goal of science is to understand a phenomenon under study.
- c. Generalization and reduction are important tools in science.
- d. Scientists only use reductionistic explanations.
- e. Science always used non-human experimental subjects.

Difficulty: 3

Question ID: 1.1-33

Page Ref: 10

Topic: Goals of Research

Skill: Conceptual

Answer: d. Scientists only use reductionistic explanations.

1.1-34. Ancient Greek culture before Hippocrates considered the _____ to be the seat of thought and emotion.

- a. gut
- b. heart
- c. brain
- d. pineal gland
- e. stomach

Difficulty: 1

Question ID: 1.1-34

Page Ref: 11

Topic: Biological Roots of Physiological Psychology

Skill: Factual

Answer: b. heart

1.1-35. The philosopher _____ attributed thought and emotion to the brain, whereas _____ considered the function of the brain as important for cooling the heart.

- a. Aristotle; Hippocrates
- b. Galen; Aristotle
- c. Hippocrates; Aristotle
- d. Plato; Galen
- e. Hippocrates; Plato

Difficulty: 2

Question ID: 1.1-35

Page Ref: 11

Topic: Biological Roots of Physiological Psychology

Skill: Factual

Answer: c. Hippocrates; Aristotle

1.1-36. Which of the following comments on brain function would be most likely to be made by Aristotle?

- a. The mind acts through the pineal body to control the body.
- b. The brain serves to cool the passions of the heart.
- c. The brain is the seat of emotion, but not thought.
- d. The brain routes sensory information to the heart
- e. Injury to the brain alters emotion and thought.

Difficulty: 2

Question ID: 1.1-36

Page Ref: 11

Topic: Biological Roots of Physiological Psychology

Skill: Conceptual

Answer: b. The brain serves to cool the passions of the heart.

1.1-37. **Rene Descartes asserted that**

- a. humans cannot understand the nature of the real world.
- b. the heart is the seat of thought and emotion.
- c. the brain acts to cool the passions of the heart.
- d. animals are mechanical creatures controlled by environmental stimuli.
- e. the mind is an emergent property of the brain.

Difficulty: 2

Question ID: 1.1-37

Page Ref: 11

Topic: Biological Roots of Physiological Psychology

Skill: Factual

Answer: d. animals are mechanical creatures controlled by environmental stimuli.

1.1-38. **Rene Descartes would be considered to hold a _____ view of the mind-body problem.**

- a. monist
- b. reductionist
- c. pluralist
- d. dualist
- e. animist

Difficulty: 2

Question ID: 1.1-38

Page Ref: 11

Topic: Biological Roots of Physiological Psychology

Skill: Conceptual

Answer: d. dualist

1.1-39. **A reflex is considered to be a(n)_____ movement elicited by a(n) _____ .**

- a. involuntary; external stimulus
- b. voluntary; internal stimulus
- c. conscious; external stimulus
- d. unconscious; internal stimulus

Difficulty: 2

Question ID: 1.1-39

Page Ref: 11

Topic: Biological Roots of Physiological Psychology

Skill: Conceptual

Answer: a. involuntary; external stimulus

1.1-40. **Descartes's view of the mind-body was unique in that he argued that**

- a. the heart is the organ that controls emotions.
- b. the muscles are activated by electrical nerve signals.
- c. unlike animals, human bodies do not show reflexes.
- d. a reflex is a process controlled by the mind.
- e. the mind controls the movements of the body.

Difficulty: 3

Question ID: 1.1-40

Page Ref: 11

Topic: Biological Roots of Physiological Psychology

Skill: Conceptual

Answer: e. the mind controls the movements of the body.

1.1-41. _____ is considered the father of modern philosophy.

- a. Sigmund Freud
- b. Hippocrates
- c. Aristotle
- d. Rene Descartes
- e. Wilhelm Wundt

Difficulty: 1

Question ID: 1.1-41

Page Ref: 11

Topic: Biological Roots of Physiological Psychology

Skill: Factual

Answer: d. Rene Descartes

1.1-42. Descartes argued that

- a. the heart is the organ that controls emotions.
- b. the muscles are activated by electrical nerve signals.
- c. unlike animals, human bodies do not show reflexes.
- d. nerves produce bodily movements by inflating muscles with fluid.
- e. the mind is not linked to the brain.

Difficulty: 3

Question ID: 1.1-42

Page Ref: 11-12

Topic: Biological Roots of Physiological Psychology

Skill: Conceptual

Answer: d. nerves produce bodily movements by inflating muscles with fluid.

1.1-43. A(An) _____ is a simple system that works on known principles that can be used to explain a complex system.

- a. model
- b. assumption
- c. hypothesis
- d. prototype
- e. syllogism

Difficulty: 2

Question ID: 1.1-43

Page Ref: 12

Topic: Biological Roots of Physiological Psychology

Skill: Factual

Answer: a. model

1.1-44. In a simple experiment, Galvani disproved the hydraulic nerve-muscle model proposed by Descartes. Galvani removed a nerve and its attached muscle fibers from a frog and showed that _____ of the nerve caused _____ of the muscle.

- a. electrical stimulation; relaxation
- b. electrical stimulation; contraction
- c. chemical stimulation; contraction
- d. pressurization; relaxation
- e. chemical stimulation; relaxation

Difficulty: 2

Question ID: 1.1-44

Page Ref: 12

Topic: Biological Roots of Physiological Psychology

Skill: Factual

Answer: b. electrical stimulation; contraction

1.1-45. Galvani's experiment involving a frog leg proved that

- a. the heart is the organ that controls emotions.
- b. the muscles are activated by electrical nerve signals.
- c. unlike animals, human bodies do not possess reflexes.
- d. a reflex is a process controlled by the mind.
- e. the mind controls the movements of the body.

Difficulty: 2

Question ID: 1.1-45

Page Ref: 12

Topic: Biological Roots of Physiological Psychology

Skill: Conceptual

Answer: b. the muscles are activated by electrical nerve signals.

1.1-46. Galvani's experiment involving a frog leg disproved

- a. the notion that heart is the organ that controls emotions.
- b. the idea that muscles are activated by electrical nerve signals.
- c. the view that human bodies do not possess reflexes.
- d. Descartes's model of muscle operation by the brain.
- e. Galen's view that the non-material mind controls the movements of the body.

Difficulty: 3

Question ID: 1.1-46

Page Ref: 12

Topic: Biological roots of physiological psychology

Skill: Conceptual

Answer: d. Descartes's model of muscle operation by the brain.

1.1-47. **Which of the following statements is NOT consistent with Descartes' explanation of the mind-body problem?**

- a. The brain contains fluid-filled chambers.
- b. Nerves are filled with fluid and are under pressure.
- c. Muscles move the body.
- d. Electrical stimulation of a nerve evokes contraction of a detached muscle.
- e. The brain controls the body muscles.

Difficulty: 3

Question ID: 1.1-47

Page Ref: 12

Topic: Biological Roots of Physiological Psychology

Skill: Conceptual

Answer: d. Electrical stimulation of a nerve evokes contraction of a detached muscle.

1.1-48. _____ was a physiologist who proposed the doctrine of specific nerve energies.

- a. Johannes Müller
- b. Paul Broca
- c. Rene Descartes
- d. Galen
- e. Wilhelm Wundt

Difficulty: 1

Question ID: 1.1-48

Page Ref: 13

Topic: Biological Roots of Physiological Psychology

Skill: Factual

Answer: a. Johannes Müller

1.1-49. **Which of the following is consistent with the doctrine of specific nerve energies?**

- a. Electrical stimulation of a sensory nerve can evoke a specific sensation.
- b. All nerves carry similar electrical messages.
- c. Exerting pressure on the eyeball can evoke a sensation of light flashes.
- d. Nerves can be activated by mechanical stimuli.
- e. All of the above are correct.

Difficulty: 3

Question ID: 1.1-49

Page Ref: 13

Topic: Biological Roots of Physiological Psychology

Skill: Conceptual

Answer: e. All of the above are correct.

1.1-50. **Which scientist was among the first to advocate the use of experimental techniques in the study of physiology?**

- a. Galen
- b. Rene Descartes
- c. Aristotle
- d. Johannes Müller
- e. Charles Darwin

Difficulty: 2

Question ID: 1.1-50

Page Ref: 13

Topic: Biological Roots of Physiological Psychology

Skill: Factual

Answer: d. Johannes Müller

1.1-51. **Johannes Muller proposed**

- a. an important role for natural selection in the evolution of behavior.
- b. that language is a function of the right hemisphere.
- c. that the brain is divided into different functional areas with each receiving signals from a different set of nerves.
- d. that the pineal body allows the brain to control the mind.
- e. that the heart is the seat of thought and emotion.

Difficulty: 2**Question ID:** 1.1-51**Page Ref:** 13**Topic:** Biological Roots of Physiological Psychology**Skill:** Conceptual**Answer:** c. that the brain is divided into different functional areas with each receiving signals from a different set of nerves.1.1-52. **Pierre Flourens is known**

- a. for his use of the experimental ablation technique to examine brain function.
- b. as the father of modern philosophy.
- c. for proposing the theory of evolution.
- d. for his study of language abilities in stroke victims.
- e. as a dualist philosopher.

Difficulty: 2**Question ID:** 1.1-52**Page Ref:** 13**Topic:** Biological Roots of Physiological Psychology**Skill:** Conceptual**Answer:** a. for his use of the experimental ablation technique to examine brain function.1.1-53. **The technique of experimental ablation involves**

- a. recording the relative size of brains across different species.
- b. measurements of conduction velocity rates in damaged and intact nerves.
- c. chronic chemical stimulation of the brain.
- d. low-level electrical stimulation of the brain.
- e. assessment of behavioral changes after the intentional damage to a portion of the brain.

Difficulty: 3**Question ID:** 1.1-53**Page Ref:** 13**Topic:** Biological Roots of Physiological Psychology**Skill:** Conceptual**Answer:** e. assessment of behavioral changes after the intentional damage to a portion of the brain.

1.1-54. **Paul Broca performed an autopsy of the brain of a patient who had been unable to speak after suffering a stroke. Broca concluded that**

- a. the control of speech is a function of the left hemisphere.
- b. the pineal body controls speech production.
- c. damage to the right hemisphere impairs speech.
- d. muscle atrophy after a stroke is the result of a fluid pressure drop in the ventricles
- e. B and C are correct.

Difficulty: 2

Question ID: 1.1-54

Page Ref: 13

Topic: Biological Roots of Physiological Psychology

Skill: Conceptual

Answer: a. the control of speech is a function of the left hemisphere.

1.1-55. **In 1870, Fritsch and Hitzig reported that electrical stimulation of the _____ in dogs resulted in muscle contractions of _____ .**

- a. pineal gland; the facial muscles
- b. parietal cortex; the opposite side of the body
- c. corpus callosum; both hind legs.
- d. primary motor cortex; the opposite side of the body
- e. globus pallidus; the same side of the body

Difficulty: 2

Question ID: 1.1-55

Page Ref: 13

Topic: Biological Roots of Physiological Psychology

Skill: Conceptual

Answer: d. primary motor cortex; the opposite side of the body

1.1-56. **Hermann von Helmholtz is known for**

- a. his contributions to the study of physics.
- b. his contributions to the study of physiology.
- c. his invention of the ophthalmoscope.
- d. measuring the conduction speed of the action potential.
- e. All of the above are correct.

Difficulty: 2

Question ID: 1.1-56

Page Ref: 13-14

Topic: Biological Roots of Physiological Psychology

Skill: Factual

Answer: e. All of the above are correct.

1.1-57. **In his studies of nerve conduction velocity, Hermann von Helmholtz noted that**

- a. electrical signal speeds differ from nerve to nerve.
- b. nerve conduction velocity is at the speed of light.
- c. nerves conduct signals faster than do electrical wires.
- d. the velocity of nerve conduction is slower in nerves than in wires.
- e. different sensory systems use different conduction speeds.

Difficulty: 3

Question ID: 1.1-57

Page Ref: 14

Topic: Biological Roots of Physiological Psychology

Skill: Conceptual

Answer: d. the velocity of nerve conduction is slower in nerves than in wires.

1.1-58. **Hermann von Helmholtz estimated that nerve conduction velocity is about**

- a. 90 feet/second.
- b. 9 feet/second.
- c. 0.9 feet/second.
- d. 900 feet/second.
- e. 9,000 feet/second.

Difficulty: 2

Question ID: 1.1-58

Page Ref: 14

Topic: Biological Roots of Physiological Psychology

Skill: Factual

Answer: a. 90 feet/second.

1.1-59. **Charles Darwin proposed the principle(s) of**

- a. specific nerve energy.
- b. evolution.
- c. experimental ablation.
- d. natural selection.
- e. B and D are correct.

Difficulty: 1

Question ID: 1.1-59

Page Ref: 14

Topic: Natural Selection and Evolution

Skill: Factual

Answer: e. B and D are correct.

1.1-60. **The belief that the natural characteristics of an organism exert useful effects is termed**

- a. reductionism.
- b. positivism.
- c. functionalism.
- d. consolidation.
- e. adaptation.

Difficulty: 2

Question ID: 1.1-60

Page Ref: 15

Topic: Functionalism and the Inheritance of Traits

Skill: Conceptual

Answer: c. functionalism.

1.1-61. **The physiological mechanisms of an organism that give rise to certain behaviors**

- a. can be said to have purpose.
- b. can be understood in terms of whether the behaviors produce useful functions.
- c. are thought to be different from species to species.
- d. are not subject to evolutionary principles.
- e. are present at birth and do not require environmental stimulation for complete expression.

Difficulty: 3

Question ID: 1.1-61

Page Ref: 15

Topic: Functionalism and the Inheritance of Traits

Skill: Conceptual

Answer: b. can be understood in terms of whether the behaviors produce useful functions.

1.1-62. **Which of the following is consistent with Blest's study of the impact of background pattern on consumption of worms by birds?**

- a. Background pattern made no difference in this study.
- b. Birds avoided backgrounds that resembled the bark of a tree.
- c. Worms were most likely to be eaten when placed on a background that contained an eyespot pattern.
- d. Birds rapidly approached backgrounds that contained eyespot patterns.
- e. Backgrounds that contained eyespot patterns were avoided by the birds.

Difficulty: 3

Question ID: 1.1-62

Page Ref: 15

Topic: Functionalism and the inheritance of traits

Skill: Conceptual

Answer: e. Backgrounds that contained eyespot patterns were avoided by the birds.

1.1-63. **The principle of natural selection proposes that certain characteristics that _____ will become more prevalent in a species.**

- a. are associated with multiple genetic mutations
- b. inhibit reproductive behaviors
- c. increase reproductive success
- d. impair adaption to the local environment
- e. A and B are correct.

Difficulty: 3

Question ID: 1.1-63

Page Ref: 16

Topic: Functionalism and the Inheritance of Traits

Skill: Conceptual

Answer: c. increase reproductive success

1.1-64. **Mutations involve**

- a. adverse neural development caused by drug ingestion in adulthood.
- b. accidental changes in the genetic information of the chromosomes.
- c. poor adaptation to the environment.
- d. improved reproductive success.
- e. only beneficial changes in the characteristics of an organism.

Difficulty: 3

Question ID: 1.1-64

Page Ref: 16

Topic: Functionalism and the Inheritance of Traits

Skill: Conceptual

Answer: b. accidental changes in the genetic information of the chromosomes.

1.1-65. **Genetic mutations**

- a. have mostly beneficial effects.
- b. commonly increase the survivability of offspring.
- c. rarely result in problems for the offspring.
- d. are usually deleterious.
- e. never confer selective advantages to the offspring.

Difficulty: 3

Question ID: 1.1-65

Page Ref: 16

Topic: Functionalism and the Inheritance of Traits

Skill: Conceptual

Answer: d. are usually deleterious.

1.1-66. **The key benefit of genetic diversity for a species is that**

- a. diversity allows the species to adapt to different environments.
- b. mutations are kept to a minimum.
- c. diversity promotes neural development.
- d. diversity reduces reproductive success.
- e. None of the above are correct.

Difficulty: 3

Question ID: 1.1-66

Page Ref: 16

Topic: Functionalism and the Inheritance of Traits

Skill: Conceptual

Answer: a. diversity allows the species to adapt to different environments.

1.1-67. **Traits that can be altered via genetic mutations**

- a. are beneficial.
- b. are unobservable.
- c. are physical.
- d. exert direct actions on behavior.
- e. mostly involve psychological function.

Difficulty: 2

Question ID: 1.1-67

Page Ref: 16

Topic: Functionalism and the Inheritance of Traits

Skill: Factual

Answer: c. are physical.

1.1-68. **The process of evolution**

- a. does not involve genetic mutations.
- b. can occur in the absence of natural selection.
- c. rests on the doctrine of specific nerve energies.
- d. refers to a gradual change in the structure and function of a species.
- e. was proven by experimental ablation experiments.

Difficulty: 3

Question ID: 1.1-68

Page Ref: 17

Topic: Evolution of the Human Species

Skill: Conceptual

Answer: d. refers to a gradual change in the structure and function of a species.

1.1-69. **Which of the following is true of reptiles?**

- a. Reptiles lay their eggs on land.
- b. Reptiles are vertebrates.
- c. Reptiles can inhabit environments far from the sea.
- d. Reptiles buried their eggs to protect them from predators.
- e. All of the above are correct.

Difficulty: 2

Question ID: 1.1-69

Page Ref: 17

Topic: Evolution of the Human Species

Skill: Factual

Answer: e. All of the above are correct.

1.1-70. **The earliest mammals**

- a. were nocturnal.
- b. were small organisms.
- c. dined on insects.
- d. developed a keen sense of hearing.
- e. All of the above are correct.

Difficulty: 2

Question ID: 1.1-70

Page Ref: 17

Topic: Evolution of the Human Species

Skill: Factual

Answer: e. All of the above are correct.

1.1-71. **Most scientists believe that the _____ allowed certain mammals to survive the mass extinction produced by dust clouds some 65 million years ago.**

- a. ability to see well during the day
- b. capacity to maintain their body temperature
- c. ability to eat plants as well as meat
- d. capacity to breed during the night
- e. ability of their tear ducts to clear dust from their eyes

Difficulty: 2

Question ID: 1.1-71

Page Ref: 17

Topic: Evolution of the Human Species

Skill: Applied

Answer: b. capacity to maintain their body temperature

1.1-72. **_____ is thought to be an advantage associated with the development of color vision in primates.**

- a. The ability to breed at night.
- b. The ability to move in the forest at night
- c. The capacity to discriminate ripe from unripe fruit
- d. The capacity to communicate using symbols
- e. Rapid nerve conduction

Difficulty: 3

Question ID: 1.1-72

Page Ref: 18

Topic: Evolution of the Human Species

Skill: Conceptual

Answer: c. The capacity to discriminate ripe from unripe fruit

1.1-73. **With regard to the surviving members of the primate family tree,**

- a. members of the family tree share 78.8% of their DNA.
- b. members of the family tree share 98.8% of their DNA.
- c. chimpanzees and gorillas share 50% of their genes.
- d. humans share only 1.2% of their genes with other members of the family tree.
- e. there is little genetic similarity between primate groups.

Difficulty: 2

Question ID: 1.1-73

Page Ref: 18, 20

Topic: Evolution of the Human Species

Skill: Factual

Answer: b. members of the family tree share 98.8% of their DNA.

1.1-74. **Which of the following is true of the hominid species?**

- a. *Homo neanderthalis* left Africa around 1.7 million years ago.
- b. *Homo erectus* made tools from stone.
- c. *Homo sapiens* eventually killed off *Homo neanderthal* through armed conflicts.
- d. Modern humans are known as *Homo sapiens*.
- e. *Homo sapiens* evolved directly from *Homo neanderthalis*.

Difficulty: 3

Question ID: 1.1-74

Page Ref: 18-19

Topic: Evolution of the Human Species

Skill: Factual

Answer: d. Modern humans are known as *Homo sapiens*.

1.1-75. **Which of the following is correct with regard to the relation between brain size and body size?**

- a. Human brains are larger than other species when expressed relative to total body weight.
- b. Human brains are larger than elephant brains in terms of absolute size.
- c. The human brain is more than 5% of total body weight.
- d. The elephant brain is larger than the human brain in terms of percent of body weight.
- e. Larger brains require smaller bodies.

Difficulty: 2

Question ID: 1.1-75

Page Ref: 20-21

Topic: Evolution of Large Brains

Skill: Factual

Answer: a. Human brains are larger than other species when expressed relative to total body weight.

1.1-76. **Which of the following was a characteristic of humans that allowed them to effectively compete with other species?**

- a. Color vision allows for the detection of ripe fruit and game.
- b. Mastery of fire allowed for provision of warmth in shelters.
- c. Agile hands allow for the creation and use of tools.
- d. Mastery of fire allowed food to be cooked.
- e. All of the above are correct.

Difficulty: 1

Question ID: 1.1-76

Page Ref: 20

Topic: Evolution of Large Brains

Skill: Factual

Answer: e. All of the above are correct.

1.1-77. _____ **refers to the concept that human maturation takes a long time relative to other species.**

- a. Adaptation
- b. Mutational drift
- c. Schizotemy
- d. Neoteny
- e. Allodyny

Difficulty: 2

Question ID: 1.1-77

Page Ref: 22

Topic: Evolution of Large Brains

Skill: Factual

Answer: d. Neoteny

1.1-78. **Which of the following is an argument made by the text author regarding the use of animals by humans?**

- a. Owning a pet requires permission from a veterinarian.
- b. Pet homes are regularly inspected by the government.
- c. More suffering occurs with pet owning than research.
- d. More animals die in research projects than when used as pets.
- e. No animal research has been useful for understanding and treating human disease.

Difficulty: 2

Question ID: 1.1-78

Page Ref: 23

Topic: Ethical Issues in Research with animals

Skill: Factual

Answer: c. More suffering occurs with pet owning than research.

1.1-79. **Nicholl and Russell's research indicates that animal rights activists are most concerned with the**

- a. issue of hunting and trapping of animals.
- b. eating of animals as food.
- c. use of animals as companions to humans
- d. use of animals as a source of fur for human clothing.
- e. use of animals as subjects for research

Difficulty: 2

Question ID: 1.1-79

Page Ref: 23

Topic: Ethical Issues in Research with animals

Skill: Factual

Answer: e. use of animals as subjects for research

1.1-80. **Your textbook author views _____ as an indispensable use of animals.**

- a. research for the treatment of human disease
- b. use as a source of food
- c. use as companions to humans
- d. use as a source of fur
- e. B and C are correct.

Difficulty: 2

Question ID: 1.1-80

Page Ref: 23

Topic: Ethical Issues in Research with animals

Skill: Factual

Answer: a. research for the treatment of human disease

1.1-81. **Research involving animals is currently the most effective means to study and treat which of the following human diseases?**

- a. Drug addiction
- b. Stroke
- c. Schizophrenia
- d. Obesity
- e. All of the above are correct.

Difficulty: 2

Question ID: 1.1-81

Page Ref: 24

Topic: Ethical Issues in Research with animals

Skill: Conceptual

Answer: e. All of the above are correct.

1.1-82. **_____ is the original name for the field that involves the study of the physiology of behavior.**

- a. Behavioral neuroscience
- b. Biopsychology
- c. Psychobiology
- d. Physiological psychology
- e. Biological pseudoscience

Difficulty: 1

Question ID: 1.1-82

Page Ref: 24

Topic: Careers in Neuroscience

Skill: Factual

Answer: d. Physiological psychology

1.1-83. **_____ are physicians trained to diagnose and to treat central nervous system diseases.**

- a. Psychologists
- b. Neurologists
- c. Anatomists
- d. Behavioral neuroscientists
- e. Experimental neuropsychologists

Difficulty: 2

Question ID: 1.1-83

Page Ref: 25

Topic: Careers in Neuroscience

Skill: Factual

Answer: b. Neurologists

Fill-in-the-Blank Questions

1.2-1. The notion that natural phenomena such as the wind are controlled by spirits is known as _____ .

Difficulty: 1
Question ID: 1.2-1
Page Ref: 2
Topic: Animism
Skill: Factual
Answer: animism

1.2-2. _____ is the belief that mind and body are separate entities.

Difficulty: 2
Question ID: 1.2-2
Page Ref: 3
Topic: Mind-Body Problem
Skill: Factual
Answer: Dualism

1.2-3. A person who has sustained damage to the primary visual cortex reports being blind. The ability of such a person to reach out and grasp a nearby object is known as _____ .

Difficulty: 1
Question ID: 1.2-3
Page Ref: 4
Topic: Blindsight
Skill: Conceptual
Answer: blindsight

1.2-4. Transection of the corpus callosum is useful in reducing the symptoms of _____ .

Difficulty: 2
Question ID: 1.2-4
Page Ref: 5
Topic: Split-Brain
Skill: Conceptual
Answer: epilepsy

1.2-5. Unilateral neglect is produced by damage to the _____ parietal cortex

Difficulty: 2
Question ID: 1.2-5
Page Ref: 7
Topic: Unilateral Neglect
Skill: Factual
Answer: right

1.2-6. _____ involves the use of simple processes to explain a more complex phenomenon.

Difficulty: 2
Question ID: 1.2-6
Page Ref: 10
Topic: Goals of Research
Skill: Conceptual
Answer: Reduction

1.2-7. _____ argued that the function of the brain was to cool the passions of the heart.

Difficulty: 2
Question ID: 1.2-7
Page Ref: 11
Topic: Biological Roots
Skill: Factual
Answer: Aristotle

1.2-8. _____ is considered to be the father of modern philosophy.

Difficulty: 2
Question ID: 1.2-8
Page Ref: 11
Topic: Biological Roots
Skill: Factual
Answer: Rene Descartes

1.2-9. _____ involves the measurement of changes in behavior following damage to portions of the brain.

Difficulty: 2
Question ID: 1.2-9
Page Ref: 13
Topic: Biological Roots
Skill: Conceptual
Answer: Ablation

1.2-10. _____ proposed the principles of evolution and natural selection.

Difficulty: 1
Question ID: 1.2-10
Page Ref: 14
Topic: Natural Selection and Evolution
Skill: Factual
Answer: Charles Darwin

1.2-11. Modern humans are known as _____ .

Difficulty: 2
Question ID: 1.2-11
Page Ref: 18-19
Topic: Natural Selection and Evolution
Skill: Factual
Answer: Homo sapiens

1.2-12. _____ are physicians trained to diagnose and treat central nervous system diseases.

Difficulty: 3
Question ID: 1.2-12
Page Ref: 25
Topic: Careers in Neuroscience
Skill: Factual
Answer: Neurologists

Essay Questions

1.3-1. Define the philosophical positions of animism, dualism, and monism.

Difficulty: 2
Question ID: 1.3-1
Page Ref: 2-3
Topic: Introduction
Skill: Factual
Answer: Animism is the view that objects have spirits that move them. Dualism is the philosophical view that mind and brain are separate but interacting. Monism is the view that mind is a property of the brain.

1.3-2. Discuss evidence that suggests consciousness is a physiological function.

Difficulty: 3
Question ID: 1.3-2
Page Ref: 3-7
Topic: Understanding Human Consciousness: A Psychological Approach
Skill: Conceptual
Answer: Consciousness appears to be localized to discrete circuits and allows us to more readily adapt to new environments. Brain damage can alter consciousness, as in the case of the split-brain syndrome.

1.3-3. What do the behaviors of individuals who have had the "split-brain" operation tell us about brain function?

Difficulty: 3
Question ID: 1.3-3
Page Ref: 4-7
Topic: Split-Brain
Skill: Conceptual
Answer: Different psychological functions are localized in the two hemispheres.

- 1.3-4. **Explain why blindsight suggests that consciousness is not a general property of the entire brain.**

Difficulty: 3
Question ID: 1.3-4
Page Ref: 4
Topic: Blindsight
Skill: Conceptual

Answer: Persons with this brain damage are functionally blind but are able to reach out and touch an object they cannot see. Thus, certain brain circuits can guide behavior in the absence of consciousness.

- 1.3-5. **Describe the phenomenon known as unilateral neglect and describe at least one research study that suggests that such persons are not simply blind.**

Difficulty: 2
Question ID: 1.3-5
Page Ref: 7-8
Topic: Unilateral Neglect
Skill: Conceptual

Answer: Damage to the right parietal lobe results in a person who ignores objects on his left side and is unaware of the left side of an object located anywhere. These persons are not simply blind because they can make judgments about objects on their left side.

- 1.3-6. **Describe the technique of ablation and identify the researchers who were responsible for its development.**

Difficulty: 2
Question ID: 1.3-6
Page Ref: 10-13
Topic: Biological Roots of Physiological Psychology
Skill: Conceptual

Answer: Ablation involves the physical manipulation of the brain and allows for an assessment of a change in function after the manipulation. Experimental ablation was developed by Pierre Flourens.

- 1.3-7. **Identify a key contributor to the development of physiology and discuss the implications that his work had for the science of neurophysiology.**

Difficulty: 2
Question ID: 1.3-7
Page Ref: 10-14
Topic: Biological Roots of Physiological Psychology
Skill: Conceptual

Answer: Galvani used electrical current to study muscle contraction in the frog. Muller argued for the use of experimental methods to study physiology. Helmholtz developed methods and techniques to study the physiology of vision and audition. Flourens developed the technique of experimental ablation, which can provide insight into the functions of brain regions.

1.3-8. Describe the implications of Galvani's research for Descartes' view of how nerves control muscle activity.

Difficulty: 2
Question ID: 1.3-8
Page Ref: 12
Topic: Biological Roots of Physiological Psychology
Skill: Conceptual

Answer: Galvani was able to contract the frog muscle via electrical stimulation when the muscle was detached from the body -- thus it was not pressure exerted from the brain that caused muscle contraction.

1.3-9. Give examples of structural and behavioral characteristics that might confer selective advantages to an organism.

Difficulty: 2
Question ID: 1.3-9
Page Ref: 15-17
Topic: Functionalism and the Inheritance of Traits
Skill: Conceptual

Answer: Natural selection suggests that certain characteristics of an organism offer an advantage that allows the organism to reproduce and to pass on that characteristic to its offspring. The coloring of an organism may allow it to blend in to the background, thus escaping detection by predators. The capacity to remain still (i.e., freeze) may similarly allow an organism to avoid predation.

1.3-10. Discuss a role that mutations play in the process of natural selection.

Difficulty: 3
Question ID: 1.3-10
Page Ref: 16
Topic: Functionalism and the Inheritance of Traits
Skill: Conceptual

Answer: Mutations increase the range of features or behaviors seen in the organism. Most of the time, this is harmful to the organism or to its reproductive fitness. Very rarely, the mutation results in a feature or behavior that increases the fitness of an organism; in these cases, the mutation is likely to become part of the preferred genetic makeup of the species.

1.3-11. Explain the typical significance of a genetic mutation for an organism.

Difficulty: 3
Question ID: 1.3-11
Page Ref: 16
Topic: Functionalism and the Inheritance of Traits
Skill: Factual

Answer: A mutation is an accidental change in the chromosomes of sperms or eggs that join together. Most mutations are deleterious, and only a few confer a selective advantage to the offspring.

1.3-12. **How has research on animals helped us to understand human diseases? Give a specific example.**

Difficulty: 2
Question ID: 1.3-12
Page Ref: 23-24
Topic: Ethical Issues in Research with animals
Skill: Conceptual

Answer: We are able to test the causes of diseases and to seek treatments for diseases. For example, stroke research has led to the development of drugs that reduce brain damage caused by anoxia associated with a stroke.

1.3-13. **Discuss the use of animals in research and the ethical issues associated with such use. Make an argument a) FOR and b) AGAINST their use.**

Difficulty: 3
Question ID: 1.3-13
Page Ref: 23-24
Topic: Ethical Issues in Research with animals
Skill: Conceptual

Answer: A relatively small percentage of animals are used in neuroscience research, and their use must be justified by the gain in knowledge produced by the research. An argument for might focus on the fact that such research may produce benefits that are real and that cannot be realized in any other way. An argument against might suggest that humans and animals are so different that results from animals are not useful for understanding humans.

1.3-14. **Explain the role of psychology in neuroscience.**

Difficulty: 1
Question ID: 1.3-14
Page Ref: 24-25
Topic: Careers in Neuroscience
Skill: Factual

Answer: Psychology is concerned with the science of behavior. Such expertise can be combined with physiology to arrive at an understanding of the physiology of behavior.

MyPsychKit Questions

1.4-1. **In the video clip entitled "Animal Rights Terrorists," the central issue addressed was**

- the ethics of using animals in research.
- the view that animal research is always unethical.
- the notion that researchers should use simulations rather than animal research.
- how to reduce the numbers of animals used as pets.
- All of the above are correct.

Difficulty: 1
Question ID: 1.4-1
Page Ref: MPK
Topic: Watch: "Animal Rights Terrorists"
Skill: Factual

Answer: a. the ethics of using animals in research.

1.4-2. Which of the following statements would least likely be made by an animal right activist?

- a. Animal research is unethical
- b. Animals have the same degree of rights as do humans
- c. The use of animals in research can be justified by the benefits of such research
- d. Animal research must be supervised by veterinarians
- e. There should be limits to the types of studies that are done using animals

Difficulty: 2

Question ID: 1.4-2

Page Ref: MPK

Topic: Watch: "Animal Rights Terrorists"

Skill: Conceptual

Answer: c. The use of animals in research can be justified by the benefits of such research

1.4-3. The giant squid known as Loligo is valuable to science because

- a. it is a rare creature.
- b. it possesses a giant axon that can be used in electrical recordings.
- c. the axons of this creature are small and few in number.
- d. the squid axon has the functional characteristics of muscle fibers.
- e. All of the above are correct.

Difficulty: 2

Question ID: 1.4-3

Page Ref: MPK

Topic: Watch: "Studying Squid"

Skill: Conceptual

Answer: b. it possesses a giant axon that can be used in electrical recordings.

1.4-4. After watching the simulation entitled "Split-Brain Experiments," you have learned that the function of the _____ is to communicate neural information between the two hemispheres.

- a. brainstem
- b. spinal cord
- c. cerebral cortex
- d. fornix
- e. corpus callosum

Difficulty: 1

Question ID: 1.4-4

Page Ref: MPK

Topic: Simulation: "Split-Brain Experiments"

Skill: Factual

Answer: e. corpus callosum

1.4-5. **Imagine that a person who has undergone a split-brain surgery is seated at a computer terminal that can display images as well as play sounds from the left and right side of the display. If the image of a key was displayed for a brief time period on the left side of the computer monitor, which of the following statements would be true of this person?**

- a. The person could reach for the key with his left hand.
- b. The person would be able to reach for the key with his right hand.
- c. The person could describe the key in great detail.
- d. The person would be unable to carry out this task.
- e. The neural representation of the key would reach the left occipital cortex

Difficulty: 3

Question ID: 1.4-5

Page Ref: MPK

Topic: Simulation: "Split-Brain Experiments"

Skill: Applied

Answer: a. The person could reach for the key with his left hand.

1.4-6. **Describe the value of the giant squid *Loligo* for research on neural processes and human disease.**

Difficulty: 2

Question ID: 1.4-6

Page Ref: MPK

Topic: Watch: "Studying Squid"

Skill: Conceptual

Answer: The squid possesses a giant axon that can easily be removed and studied in the laboratory. Experiments involving these axons have the potential to help us understand human diseases such as Parkinson's and Alzheimer's.

1.4-7. **Explain how animal researchers justify the use of animals in research.**

Difficulty: 2

Question ID: 1.4-7

Page Ref: MPK

Topic: Watch: "Animal Rights Terrorists"

Skill: Conceptual

Answer: Researchers point out that the research must be justified (i.e., there is a benefit to humans), that animal pain and discomfort is minimized, that animals are cared for by veterinarians, and that valuable progress has been made in the treatment of human disease by animal research.

