

- 4) Jimmie G., the man frozen in time, had a severe problem with his
- A) memory.
  - B) temperature regulation.
  - C) IQ.
  - D) attention.
  - E) ability to tell time.

Answer: A

Diff: 1      Page Ref: 6

Topic: Chapter 1 Introduction

- 5) Which of the following is a major theme of your text?
- A) thinking about biopsychology
  - B) clinical implications
  - C) the evolutionary perspective
  - D) cognitive neuroscience
  - E) all of the above

Answer: E

Diff: 1      Page Ref: 6

Topic: Chapter 1 Introduction

- 6) Biopsychology is the scientific study of the
- A) biology of behavior.
  - B) brain.
  - C) chemistry of the brain.
  - D) biology of the brain.
  - E) biology of cognition.

Answer: A

Diff: 1      Page Ref: 7

Topic: 1.1 What Is Biopsychology?

- 7) Psychology is often defined as the scientific study of
- A) psychophysics.
  - B) behavior.
  - C) biopsychology.
  - D) the brain.
  - E) conditioning.

Answer: B

Diff: 1      Page Ref: 7

Topic: 1.1 What Is Biopsychology?

- 8) Psychobiology, behavioral biology, and behavioral neuroscience are all approximate synonyms for
- A) cognitive behavior.
  - B) behavioral psychology.
  - C) biopsychology.
  - D) neurophysiology.
  - E) neuroscience.

Answer: C

Diff: 2 Page Ref: 7

Topic: 1.1 What Is Biopsychology?

- 9) The man who played a key role in the emergence of biopsychology as a discipline by writing The Organization of Behavior is
- A) Sperry.
  - B) Hebb.
  - C) Lashley.
  - D) Milner.
  - E) Pellis.

Answer: B

Diff: 2 Page Ref: 7

Topic: 1.1 What Is Biopsychology?

- 10) According to the textbook, biopsychology as it is practiced today emerged as a discipline in about
- A) 1549.
  - B) 1649.
  - C) 1749.
  - D) 1849.
  - E) 1949.

Answer: E

Diff: 2 Page Ref: 7

Topic: 1.1 What Is Biopsychology?

- 11) Which of the following is the youngest scientific discipline?
- A) physics
  - B) astrology
  - C) biology
  - D) biopsychology
  - E) chemistry

Answer: D

Diff: 1 Page Ref: 7

Topic: 1.1 What Is Biopsychology?

12) Biopsychology is a branch or division of

- A) neuropsychology.
- B) psychophysiology.
- C) neuroscience.
- D) all of the above
- E) both A and B

Answer: C

Diff: 2      Page Ref: 7

Topic: 1.1 What Is Biopsychology?

13) What distinguishes biopsychology from the other subdisciplines of neuroscience?

- A) its focus on the study of behavior
- B) its focus on animal subjects
- C) its focus on psychiatric disorders
- D) its focus on psychoactive drugs
- E) both C and D

Answer: A

Diff: 3      Page Ref: 7

Topic: 1.1 What Is Biopsychology?

14) Which subdiscipline of neuroscience focuses on the study of nervous system disorders?

- A) ethoexperimental psychology
- B) biopsychology
- C) developmental neurobiology
- D) neuropathology
- E) neuroendocrinology

Answer: D

Diff: 2      Page Ref: 8

Topic: 1.1 What Is Biopsychology?

15) Structure is to function as

- A) biopsychology is to psychology.
- B) neuroanatomy is to neurophysiology.
- C) neuropathology is to clinical psychology.
- D) neuroscience is to biopsychology.
- E) biopsychology is to neuroscience.

Answer: B

Diff: 3      Page Ref: 8

Topic: 1.1 What Is Biopsychology?

- 16) All behavior is the product of
- A) an organism's genetic endowment.
  - B) an organism's experience.
  - C) an organism's perception of the current situation.
  - D) all of the above
  - E) both A and B

Answer: D

Diff: 3      Page Ref: 8

Topic: 1.1 What Is Biopsychology?

- 17) The single most influential theory in the biological sciences is the theory of
- A) D. O. Hebb.
  - B) Charles Darwin.
  - C) evolution.
  - D) both A and C
  - E) both B and C

Answer: E

Diff: 2      Page Ref: 9

Topic: 1.2 Human Evolution

- 18) Darwin's theory of evolution was published in
- A) 1312.
  - B) 1562.
  - C) 1859.
  - D) 1920.
  - E) 1943.

Answer: C

Diff: 2      Page Ref: 9

Topic: 1.2 Human Evolution

- 19) Darwin was not the first to suggest that species evolve, but he was the first to suggest
- A) how evolution occurs.
  - B) that cultures evolve.
  - C) that evolution occurs by genetics.
  - D) that mammals evolve.
  - E) that sex is an important component of evolution.

Answer: A

Diff: 2      Page Ref: 10

Topic: 1.2 Human Evolution

20) Darwin suggested a mechanism for evolution:

- A) genes.
- B) natural selection.
- C) sex.
- D) all of the above
- E) none of the above

Answer: B

Diff: 2      Page Ref: 10

Topic: 1.2 Human Evolution

21) Horse breeders have created faster horses through programs of

- A) natural selection.
- B) gene splicing.
- C) selective breeding.
- D) domestication.
- E) euthanasia.

Answer: C

Diff: 1      Page Ref: 10

Topic: 1.2 Human Evolution

22) Fitness in the Darwinian sense refers to an organism's ability to

- A) survive and contribute large numbers of fertile offspring to the next generation.
- B) remain healthy.
- C) win fights.
- D) survive.
- E) avoid predation.

Answer: A

Diff: 2      Page Ref: 10

Topic: 1.2 Human Evolution

23) Social dominance is an important factor in evolution because dominant males often

- A) kill their mates.
- B) become seriously injured.
- C) produce more offspring than nondominant males.
- D) establish hierarchies.
- E) are much larger.

Answer: C

Diff: 2      Page Ref: 11

Topic: 1.2 Human Evolution

24) Courtship displays are important evolutionary phenomena because they

- A) promote the evolution of new species.
- B) promote extinction.
- C) facilitate aggression.
- D) encourage social dominance.
- E) eliminate copulation.

Answer: A

Diff: 2 Page Ref: 11

Topic: 1.2 Human Evolution

25) Courtship displays promote the evolution of new species when they serve as a barrier to

- A) sexual behavior between males.
- B) sexual behavior between females.
- C) subpopulations of conspecifics.
- D) different species.
- E) species that do not normally interbreed.

Answer: C

Diff: 3 Page Ref: 12

Topic: 1.2 Human Evolution

26) The conspecific of a vole is a

- A) rat.
- B) monkey.
- C) human.
- D) mouse.
- E) vole.

Answer: E

Diff: 2 Page Ref: 12

Topic: 1.2 Human Evolution

27) Complex multicellular, water-dwelling organisms first appeared on earth

- A) in the early 1920s.
- B) 600 million years ago.
- C) 200 million years ago.
- D) 4 million years ago.
- E) 2 million years ago.

Answer: B

Diff: 2 Page Ref: 12

Topic: 1.2 Human Evolution

28) Animals with dorsal nerve cords are called

- A) phyla.
- B) chordates.
- C) vertebrates.
- D) mammals.
- E) amphibians.

Answer: B

*Diff: 2      Page Ref: 12*

*Topic: 1.2 Human Evolution*

29) Which of the following are chordates?

- A) humans
- B) vertebrates
- C) Florida walking catfish
- D) mammals
- E) all of the above

Answer: E

*Diff: 2      Page Ref: 12*

*Topic: 1.2 Human Evolution*

30) Which of the following is not true?

- A) All mammals are chordates.
- B) All chordates are vertebrates.
- C) All reptiles are vertebrates.
- D) All mammals are vertebrates.
- E) All vertebrates are chordates.

Answer: B

*Diff: 3      Page Ref: 12*

*Topic: 1.2 Human Evolution*

31) Birds and reptiles are

- A) amphibians.
- B) chordates.
- C) vertebrates.
- D) all of the above
- E) both B and C

Answer: E

*Diff: 3      Page Ref: 12*

*Topic: 1.2 Human Evolution*

32) The first animals to venture out of the water were

- A) reptiles.
- B) bony fishes.
- C) amphibians.
- D) Florida walking catfish.
- E) both B and C

Answer: B

Diff: 3      Page Ref: 12

Topic: 1.2 Human Evolution

33) Frogs, toads, and salamanders are

- A) vertebrates.
- B) chordates.
- C) amphibians.
- D) all of the above
- E) both A and C

Answer: D

Diff: 3      Page Ref: 12

Topic: 1.2 Human Evolution

34) Lizards, snakes, and turtles are

- A) reptiles.
- B) amphibians.
- C) vertebrates.
- D) both A and C
- E) both B and C

Answer: D

Diff: 2      Page Ref: 12

Topic: 1.2 Human Evolution

35) Reptiles evolved directly from

- A) amphibians.
- B) fish.
- C) bony fish.
- D) prosimians.
- E) snakes.

Answer: A

Diff: 2      Page Ref: 12

Topic: 1.2 Human Evolution



36) Reptiles were the first animals to

- A) have back bones.
- B) lay shell-covered eggs.
- C) be covered by dry scales.
- D) both A and B
- E) both B and C

Answer: E

Diff: 3      Page Ref: 12

Topic: 1.2 Human Evolution

37) Mammals evolved directly from

- A) reptiles.
- B) fish.
- C) amphibians.
- D) prosimians.
- E) primates.

Answer: A

Diff: 2      Page Ref: 12

Topic: 1.2 Human Evolution

38) One remaining mammalian species that lays eggs is the

- A) duck-billed platypus.
- B) hominid.
- C) prosimian.
- D) Florida walking catfish.
- E) orangutan.

Answer: A

Diff: 2      Page Ref: 13

Topic: 1.2 Human Evolution

39) Prosimians, hominids, and apes are all

- A) old-world monkeys.
- B) new-world monkeys.
- C) langurs.
- D) primates.
- E) none of the above

Answer: D

Diff: 2      Page Ref: 13

Topic: 1.2 Human Evolution

- 40) Unlike old-world monkeys, apes
- A) do not have tails.
  - B) have opposable thumbs.
  - C) do not have opposable thumbs.
  - D) cannot walk upright for short distances.
  - E) have tails.

Answer: A

Diff: 3 Page Ref: 13

Topic: 1.2 Human Evolution

- 41) The first hominids are thought to have evolved about
- A) 200 million years ago.
  - B) 100 million years ago.
  - C) 50 million years ago.
  - D) 6 million years ago.
  - E) 1 million years ago.

Answer: D

Diff: 3 Page Ref: 14

Topic: 1.2 Human Evolution

- 42) Australopithecines are thought to have evolved about \_\_\_\_\_ years ago.
- A) 100 million
  - B) 150 million
  - C) 90 million
  - D) 6 million
  - E) 100 thousand

Answer: D

Diff: 2 Page Ref: 14

Topic: 1.2 Human Evolution

- 43) The hominid line is composed of two different genera:
- A) *Australopithecus* and *Homo*.
  - B) apes and *Homo sapiens*.
  - C) apes and humans.
  - D) old-world monkeys and new-world monkeys.
  - E) none of the above

Answer: A

Diff: 3 Page Ref: 14

Topic: 1.2 Human Evolution

44) In 1978, well preserved 3.6-million-year-old footprints of 1.3-meter tall, small-brained \_\_\_\_\_ were discovered in African volcanic ash.

- A) apes.
- B) *Homo sapiens*
- C) Neanderthals
- D) Australopithecines
- E) archaeologists

Answer: D

Diff: 2      Page Ref: 14

Topic: 1.2 Human Evolution

45) The last remaining hominid species is

- A) Australopithecus.
- B) *Homo sapiens*.
- C) prosimians.
- D) lemurs.
- E) tree shrews.

Answer: B

Diff: 1      Page Ref: 15

Topic: 1.2 Human Evolution

46) About 200 thousand years ago, early hominids were gradually replaced in the fossil record by

- A) old-world monkeys.
- B) accountants.
- C) *Homo sapiens*.
- D) Cro-Magnons.
- E) *Australopithecus*.

Answer: C

Diff: 3      Page Ref: 15

Topic: 1.2 Human Evolution

47) The first modern humans ( *Homo sapiens* ) evolved about

- A) 200 million years ago.
- B) 150 million years ago.
- C) 200 thousand years ago.
- D) 20 thousand years ago.
- E) 5 thousand years ago.

Answer: C

Diff: 2      Page Ref: 15

Topic: 1.2 Human Evolution

48) Metaphorically, evolution is a

- A) scale.
- B) ladder.
- C) tree.
- D) bush.
- E) soap dish.

Answer: D

Diff: 1      Page Ref: 15

Topic: 1.2 Human Evolution

49) Approximately what proportion of all species that ever existed on earth are still in existence?

- A) about 61%
- B) about 31%
- C) about 4.5%
- D) less than 1%
- E) about 9%

Answer: D

Diff: 1      Page Ref: 15

Topic: 1.2 Human Evolution

50) Convergent evolution produces structures that are

- A) convergent.
- B) analogous.
- C) homologous.
- D) both A and C
- E) both B and C

Answer: B

Diff: 3      Page Ref: 15

Topic: 1.2 Human Evolution

51) A bird's wing and a bee's wing are

- A) convolutions.
- B) cerebral.
- C) convergent.
- D) homologous.
- E) analogous.

Answer: E

Diff: 2      Page Ref: 16

Topic: 1.2 Human Evolution

52) Early research on the evolution of the brain focused on

- A) its size.
- B) the brain stem.
- C) the thalamus.
- D) the uvula.
- E) its chemistry.

Answer: A

Diff: 1 Page Ref: 16

Topic: 1.2 Human Evolution

53) Which species has a brain larger than the human brain?

- A) whale
- B) elephant
- C) chimpanzee
- D) all of the above
- E) both A and B

Answer: E

Diff: 2 Page Ref: 16

Topic: 1.2 Human Evolution

54) Modern adult human brains vary in size from about

- A) 1,000 to 2,000 grams.
- B) 10 to 20 grams.
- C) 1,400 to 1,500 grams.
- D) 1,300 to 1,400 grams.
- E) 1,350 to 1,360 grams.

Answer: A

Diff: 3 Page Ref: 17

Topic: 1.2 Human Evolution

55) In terms of which of the following measure of brain development are humans surpassed by shrews?

- A) brain weight
- B) brain volume
- C) neocortex volume
- D) cerebellum volume
- E) brain weight expressed as a percentage of total body weight

Answer: E

Diff: 2 Page Ref: 17

Topic: 1.2 Human Evolution

- 56) In general, the brain stem regulates
- A) thinking.
  - B) memory.
  - C) emotion.
  - D) reflex activities critical for survival.
  - E) vision.

Answer: D

Diff: 1 Page Ref: 17

Topic: 1.2 Human Evolution

- 57) During the course of evolution, there has been a general increase in the
- A) size of the brain.
  - B) number of cortical convolutions.
  - C) size of the cortex.
  - D) size of the cerebrum.
  - E) all of the above

Answer: E

Diff: 1 Page Ref: 17

Topic: 1.2 Human Evolution

- 58) Which of the following animals are the most common subjects of biopsychological research?
- A) monkeys
  - B) chimpanzees
  - C) dogs
  - D) rats
  - E) cats

Answer: D

Diff: 1 Page Ref: 18

Topic: 1.2 Human Evolution

- 59) The advantage of humans over other primates as subjects in biopsychological research is that they
- A) are often cheaper.
  - B) can report their subjective experiences.
  - C) can follow verbal directions.
  - D) all of the above
  - E) both B and C

Answer: D

Diff: 2 Page Ref: 18

Topic: 1.2 Human Evolution

- 60) The main difference between human brains and the brains of their mammalian relatives is that human brains tend to be bigger and
- A) are white.
  - B) are gray.
  - C) have more cortex.
  - D) have two hemispheres.
  - E) both C and D

Answer: C

Diff: 1      Page Ref: 18

Topic: 1.2 Human Evolution

- 61) Human brains differ substantially from the brains of other mammals in that human brains have
- A) one hemisphere.
  - B) two hemispheres.
  - C) three hemispheres.
  - D) a cortex.
  - E) much more cortical tissue.

Answer: E

Diff: 1      Page Ref: 18

Topic: 1.2 Human Evolution

- 62) The comparison of brain-behavior relations in different species is called
- A) the comparative approach.
  - B) ethology.
  - C) biopsychology.
  - D) evolutionary biology.
  - E) none of the above

Answer: A

Diff: 1      Page Ref: 18

Topic: 1.2 Human Evolution

- 63) An advantage of biopsychological research on nonhuman animals as opposed to humans is that
- A) the brains of nonhumans are simpler.
  - B) there are fewer ethical constraints in studying nonhumans.
  - C) research in several species makes it possible to use the comparative approach.
  - D) all of the above
  - E) none of the above

Answer: D

Diff: 1      Page Ref: 18

Topic: 1.2 Human Evolution

- 64) Mendel
- A) studied dichotomous pea-plant traits.
  - B) began his experiments by crossing the offspring of true-breeding lines.
  - C) collaborated with Darwin.
  - D) all of the above
  - E) both A and B

Answer: E

Diff: 2      Page Ref: 19

Topic: 1.3 Fundamental Genetics

- 65) Mendel's early experiments challenged the central premise upon which previous ideas about inheritance had rested. This was the premise that
- A) there is only one gene for each trait.
  - B) there are two genes for each trait.
  - C) offspring can inherit only those traits that are displayed by their parents.
  - D) white seeds are dominant.
  - E) some traits are dominant and some are recessive.

Answer: C

Diff: 3      Page Ref: 20

Topic: 1.3 Fundamental Genetics

- 66) An organism's observable traits are referred to as its
- A) genotype.
  - B) phenotype.
  - C) dominant traits.
  - D) recessive traits.
  - E) none of the above

Answer: B

Diff: 2      Page Ref: 21

Topic: 1.3 Fundamental Genetics



- 67) The two genes\_one on each chromosome of a pair\_that control the same trait are called
- A) dominants.
  - B) phenotypes.
  - C) genotypes.
  - D) gametes.
  - E) alleles.

Answer: E

Diff: 2 Page Ref: 21

Topic: 1.3 Fundamental Genetics

- 68) Individuals who possess two identical genes for a particular trait
- A) are homozygous for that trait.
  - B) are heterozygous for that trait.
  - C) cannot have offspring of the same phenotype for that trait.
  - D) cannot have offspring of the same genotype for that trait.
  - E) none of the above

Answer: A

Diff: 2 Page Ref: 21

Topic: 1.3 Fundamental Genetics

- 69) If an individual has a recessive phenotype for a particular trait, it can be concluded with absolute certainty that
- A) both parents also had a recessive phenotype for that trait.
  - B) at least one parent had a recessive phenotype for that trait.
  - C) both parents were not homozygous for the recessive gene for that trait.
  - D) both parents were not homozygous for the dominant gene for that trait.
  - E) both A and C

Answer: D

Diff: 3 Page Ref: 21

Topic: 1.3 Fundamental Genetics

- 70) In each cell of the human body, there are normally
- A) 21 chromosomes.
  - B) 21 pairs of chromosomes.
  - C) 23 genes.
  - D) 23 chromosomes.
  - E) 23 pairs of chromosomes.

Answer: E

Diff: 1 Page Ref: 21

Topic: 1.3 Fundamental Genetics

71) Gametes are produced by

- A) mitosis.
- B) mitotic cell division.
- C) meiosis.
- D) copulation
- E) fertilization.

Answer: C

Diff: 3      Page Ref: 21

Topic: 1.3 Fundamental Genetics

72) Just prior to mitotic cell division, the number of chromosomes in the cell

- A) doubles.
- B) is reduced by half.
- C) doubles twice.
- D) stays the same.
- E) is increased by 50%.

Answer: A

Diff: 2      Page Ref: 21

Topic: 1.3 Fundamental Genetics

73) Female mammals have

- A) only one X chromosome.
- B) only one Y chromosome.
- C) two X chromosomes.
- D) two Y chromosomes.
- E) both A and B

Answer: C

Diff: 1      Page Ref: 22

Topic: 1.3 Fundamental Genetics

74) Sex-linked traits that are dominant appear more frequently in

- A) females.
- B) males.
- C) neural disorders.
- D) XY individuals.
- E) both B and D

Answer: A

Diff: 3      Page Ref: 23

Topic: 1.3 Fundamental Genetics

75) Color blindness occurs more frequently in males than in females because it is

- A) dominant.
- B) sex-linked.
- C) quite common.
- D) a recessive sex-linked trait.
- E) both A and B

Answer: D

Diff: 3      Page Ref: 23

Topic: 1.3 Fundamental Genetics

76) The "letters" of the genetic code are

- A) deoxyribose bases.
- B) phosphates.
- C) nucleotide bases.
- D) amino acids.
- E) peptides.

Answer: C

Diff: 1      Page Ref: 23

Topic: 1.3 Fundamental Genetics

77) How many nucleotide bases are there in DNA?

- A) 1
- B) 2
- C) 4
- D) 5
- E) none of the above

Answer: C

Diff: 1      Page Ref: 23

Topic: 1.3 Fundamental Genetics

78) On the DNA molecule, cytosine binds to

- A) guanine.
- B) adenine.
- C) thymine.
- D) thiamine.
- E) uracil.

Answer: A

Diff: 2      Page Ref: 23

Topic: 1.3 Fundamental Genetics

79) In Down syndrome, there is

- A) no guanine.
- B) no adenine.
- C) no thymine.
- D) no cytosine.
- E) an extra chromosome in each cell.

Answer: E

Diff: 2      Page Ref: 23

Topic: 1.3 Fundamental Genetics

80) Accidental alteration in individual genes during replication is called

- A) crossing over.
- B) translation.
- C) linkage.
- D) mutation.
- E) self-duplication.

Answer: D

Diff: 2      Page Ref: 23

Topic: 1.3 Fundamental Genetics

81) Which of the following is a short segment of DNA that determines whether or not a strand of messenger RNA will be transcribed from a particular structural gene?

- A) ribosome
- B) operator gene
- C) codon
- D) nucleotide
- E) codon segment

Answer: B

Diff: 2      Page Ref: 24

Topic: 1.3 Fundamental Genetics

82) DNA is to RNA as

- A) guanine is to uracil.
- B) thymine is to cytosine.
- C) uracil is to thymine.
- D) thymine is to uracil.
- E) uracil is to guanine.

Answer: D

Diff: 3      Page Ref: 24

Topic: 1.3 Fundamental Genetics

83) Each codon

- A) comprises three consecutive bases on the messenger RNA molecule.
- B) instructs the ribosome to add one amino acid from the cytoplasm to the growing protein chain.
- C) contains all of the information necessary to synthesize a complete protein.
- D) all of the above
- E) both A and B

Answer: E

Diff: 2      Page Ref: 24

Topic: 1.3 Fundamental Genetics

84) Which of the following contains all of the base sequences necessary for the synthesis of a single protein?

- A) ribosome
- B) operator gene
- C) structural gene
- D) chromosome
- E) nucleotide

Answer: C

Diff: 2      Page Ref: 24

Topic: 1.3 Fundamental Genetics

85) Each amino acid is carried to the ribosome by

- A) transfer RNA.
- B) a codon.
- C) messenger RNA.
- D) operator genes.
- E) proteins.

Answer: A

Diff: 2      Page Ref: 25

Topic: 1.3 Fundamental Genetics

86) Construction of a detailed physical map of human chromosomes

- A) began in earnest in 1990.
- B) was a massive collaborative effort.
- C) is now complete.
- D) was an attempt to locate the 3 billion base letters that compose human chromosomes.
- E) all of the above

Answer: E

Diff: 1      Page Ref: 26

Topic: 1.3 Fundamental Genetics

87) Arguably, the most ambitious scientific project of all time began in 1990: the

- A) American space program.
- B) cognitive neuroscience project.
- C) human genome project.
- D) decade of the brain.
- E) theory of evolution.

Answer: C

Diff: 1      Page Ref: 26

Topic: 1.3 Fundamental Genetics

88) Many people overestimate the degree to which the human genome project will contribute to the understanding of human development because they fail to appreciate that

- A) the human genome project is decades from completion.
- B) it will still be necessary to determine how the genes interact.
- C) it will still be necessary to determine how each gene is affected by experience.
- D) all of the above
- E) both B and C

Answer: E

Diff: 3      Page Ref: 26

Topic: 1.3 Fundamental Genetics

89) How many structural genes are there in the human genome?

- A) about 34,000
- B) 3 times more than in the chimpanzee genome.
- C) 8 times more than in the mouse genome.
- D) 35 times more than in the fruit fly genome.
- E) about 34 billion.

Answer: A

Diff: 3      Page Ref: 26

Topic: 1.3 Fundamental Genetics

90) The idea that the human brain and human mind are separate entities was formalized in the 1600s by

- A) Hebb.
- B) Locke.
- C) Plato.
- D) Descartes.
- E) Pinel.

Answer: D

Diff: 2      Page Ref: 27

Topic: 1.4 Thinking about the Biology of Behavior

91) Descartes's philosophy was called

- A) monism.
- B) behaviorism.
- C) ethology.
- D) mentalism.
- E) dualism.

Answer: E

Diff: 2      Page Ref: 27

Topic: 1.4 Thinking about the Biology of Behavior

92) Asomatognosia is a

- A) form of Korsakoff's syndrome.
- B) dualistic philosophy.
- C) learned response.
- D) consequence of hypothalamic damage.
- E) deficiency in the awareness of parts of one's own body.

Answer: E

Diff: 1      Page Ref: 28

Topic: 1.4 Thinking about the Biology of Behavior

93) Asomatognosia typically

- A) results from damage to the right parietal lobe.
- B) affects the left side of the body.
- C) affects both sides of the body.
- D) affects the right side of the body.
- E) both A and B

Answer: E

Diff: 3      Page Ref: 28

Topic: 1.4 Thinking about the Biology of Behavior

94) Nature is to nurture as

- A) learning is to genetics.
- B) behaviorism is to ethology.
- C) genetics is to experience.
- D) both A and B
- E) both B and C

Answer: C

Diff: 3      Page Ref: 29

Topic: 1.4 Thinking about the Biology of Behavior

- 95) European ethologists focused on the study of
- A) invertebrates.
  - B) instinctive behaviors.
  - C) learning.
  - D) both A and C
  - E) both B and C

Answer: B

Diff: 3      Page Ref: 29

Topic: 1.4 Thinking about the Biology of Behavior

- 96) Identical twins are
- A) monozygotic.
  - B) dizygotic.
  - C) fraternal.
  - D) both A and C
  - E) both B and C

Answer: A

Diff: 1      Page Ref: 31

Topic: 1.4 Thinking about the Biology of Behavior

- 97) Identical is to fraternal as
- A) dizygotic is to monozygotic.
  - B) polyzygotic is to monozygotic.
  - C) two is to one.
  - D) culture is to experience.
  - E) monozygotic is to dizygotic.

Answer: E

Diff: 2      Page Ref: 31

Topic: 1.4 Thinking about the Biology of Behavior

- 98) The most extensive study of twins reared apart is the
- A) British study.
  - B) Canadian study.
  - C) New York study.
  - D) Minnesota study.
  - E) North African study.

Answer: D

Diff: 1      Page Ref: 31

Topic: 1.4 Thinking about the Biology of Behavior



- 99) In the Minnesota study, the heritability estimate for IQ was 70%. This means that IQ is
- A) 70% genetic.
  - B) about 30% environmental.
  - C) about 70% genetic.
  - D) both B and C
  - E) none of the above

Answer: E

Diff: 3      Page Ref: 32

Topic: 1.4 Thinking about the Biology of Behavior

- 100) A heritability estimate is
- A) an estimate of the proportion of a trait that is attributable to genetics.
  - B) an estimate of the proportion of between-subject variability occurring in a particular trait in a particular study that resulted from genetic differences among the subjects.
  - C) likely to be higher in studies with little environmental variation.
  - D) both A and C
  - E) both B and C

Answer: E

Diff: 3      Page Ref: 33

Topic: 1.4 Thinking about the Biology of Behavior

- 101) In the study of heritability estimates, increasing the genetic diversity of the subjects would likely
- A) decrease the heritability estimate.
  - B) confound the experiment.
  - C) have no effect on the heritability estimate.
  - D) reduce the accuracy of the heritability estimate.
  - E) increase the heritability of estimate.

Answer: E

Diff: 3      Page Ref: 33

Topic: 1.4 Thinking about the Biology of Behavior

## Fill-in-the-Blank Questions

- 1) According to the text, \_\_\_\_\_ played a key role in the emergence of the field of biopsychology by writing a book published in 1949.

Answer: Hebb

Diff: 2      Page Ref: 7

Topic: 1.1 What Is Biopsychology?

2) The study of nervous system disorders is called \_\_\_\_\_.

Answer: neuropathology

Diff: 3      Page Ref: 8

Topic: 1.1 What Is Biopsychology?

3) Modern biology began in 1859 with the publication of *On the* \_\_\_\_\_ by Darwin.

Answer: *Origin of Species*

Diff: 3      Page Ref: 9

Topic: 1.2 Human Evolution

4) Social dominance plays a role in evolution because dominant animals produce more \_\_\_\_\_.

Answer: offspring

Diff: 2      Page Ref: 11

Topic: 1.2 Human Evolution

5) Mammals evolved from a line of small \_\_\_\_\_.

Answer: reptiles

Diff: 3      Page Ref: 12

Topic: 1.2 Human Evolution

6) The first *Homo* species is thought to have evolved from a species of \_\_\_\_\_ about 2 million years ago.

Answer: *Australopithecus*

Diff: 3      Page Ref: 14

Topic: 1.2 Human Evolution

7) Similarities between \_\_\_\_\_ structures result from convergent evolution.

Answer: analogous

Diff: 3      Page Ref: 15

Topic: 1.2 Human Evolution

8) All body cells of a human normally contain \_\_\_\_\_ pairs of chromosomes.

Answer: 23

Diff: 1      Page Ref: 21

Topic: 1.3 Fundamental Genetics

9) The two genes that control the same trait are called \_\_\_\_\_.

Answer: alleles

Diff: 2      Page Ref: 21

Topic: 1.3 Fundamental Genetics

10) The nucleotide base \_\_\_\_\_ is found in DNA but not in RNA.

Answer: thymine

Diff: 3      Page Ref: 24

Topic: 1.3 Fundamental Genetics

11) \_\_\_\_\_ RNA carries the genetic code from DNA in the nucleus of the cell to the cytoplasm of the cell body.

Answer: Messenger

Diff: 1      Page Ref: 25

Topic: 1.3 Fundamental Genetics

12) Proteins are long chains of \_\_\_\_\_.

Answer: amino acids

Diff: 1      Page Ref: 25

Topic: 1.3 Fundamental Genetics

13) Asomatognosia is typically produced by lesions to the right \_\_\_\_\_.

Answer: parietal lobe

Diff: 3      Page Ref: 28

Topic: 1.4 Thinking about the Biology of Behavior

14) In the early 20th century, the nature side of the nature–nurture debate was championed by European \_\_\_\_\_.

Answer: ethologists

Diff: 2      Page Ref: 29

Topic: 1.4 Thinking about the Biology of Behavior

15) Monozygotic twins are more commonly called \_\_\_\_\_ twins.

Answer: identical

Diff: 1      Page Ref: 31

Topic: 1.4 Thinking about the Biology of Behavior

## Essay Questions

1) Discuss biopsychology and its special role as a field of neuroscience.

Diff: 1

Topic: 1.1 What Is Biopsychology?

2) Describe the model of the biology of behavior that has been adopted by most biopsychologists.

Diff: 3

Topic: 1.1 What Is Biopsychology?

- 3) Briefly summarize the main stages of human evolution beginning 410 million years ago with the evolution of amphibians.

*Diff: 3*

*Topic: 1.2 Human Evolution*

- 4) Describe and discuss four often-misunderstood points about evolution.

*Diff: 2*

*Topic: 1.2 Human Evolution*

- 5) Describe how structural genes are expressed, that is, translated into proteins.

*Diff: 2*

*Topic: 1.3 Fundamental Genetics*

- 6) Discuss the human genome project. How much does it contribute to our knowledge of brain function? What is left to be done?

*Diff: 3*

*Topic: 1.3 Fundamental Genetics*

- 7) Discuss the mind-brain dichotomy.

*Diff: 2*

*Topic: 1.4 Thinking about the Biology of Behavior*

- 8) Discuss the interaction of genetic factors and experience in behavioral development.

*Diff: 2*

*Topic: 1.4 Thinking about the Biology of Behavior*

- 9) Compare the behavioral genetics of individual differences. Be sure to explain and discuss heritability estimates in your answer.

*Diff: 3*

*Topic: 1.4 Thinking about the Biology of Behavior*

## Chapter 2 The Anatomy of the Brain: The Systems, Structures, and Cells that Make up Your Nervous System.

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### Multiple-Choice Questions

- 1) The two major divisions of the nervous system are the
- A) ANS and the CNS.
  - B) SNS and the CNS.
  - C) PNS and the CNS.
  - D) ANS and the PNS.
  - E) brain and the spinal cord.

Answer: C

Diff: 1 Page Ref: 37

Topic: 2.1 General Layout of the Nervous System

- 2) The CNS is composed of two major divisions: the
- A) ANS and PNS.
  - B) brain and brain stem.
  - C) SNS and ANS.
  - D) spinal cord and brain stem.
  - E) none of the above

Answer: E

Diff: 2 Page Ref: 37

Topic: 2.1 General Layout of the Nervous System

- 3) The ANS is part of the
- A) sympathetic nervous system.
  - B) parasympathetic nervous system.
  - C) brain.
  - D) CNS.
  - E) none of the above

Answer: E

Diff: 2 Page Ref: 37

Topic: 2.1 General Layout of the Nervous System