Zimbardo TB CH02

Key: Answer, Page, Type, Learning Objective, Level

Type
A=Applied
C=Conceptual
F=Factual
Level
(1)=Easy; (2)=Moderate; (3)=Difficult

LO=Learning Objective
SG=Used in Study Guide
p=page

Zimbardo TB CH02

Multiple Choice Single Select

M/C Question 1
Which of the following is true of nerve cell development?

a) The brain has excess neurons at birth.
b) There are about 100 billion nerve cells in the adult brain.
c) Some nerve cells are pruned away during the first few years of life.
d) The human brain has the ability to think about itself.
e) All of these answers are correct.

ANS: e
Objective=2.1: Describe Darwin's theory of evolution and natural selection
Topic=Introduction
Skill=Understanding
Difficulty=Moderate

M/C Question 2
Because the human brain is already programmed for language at birth, we can say that language is a(n) _____ behavioral tendency.

a) essential
b) critical
c) innate
d) somatic
e) cerebral

ANS: c
Objective=2.1: Describe Darwin's theory of evolution and natural selection
Topic=Evolution and Natural Selection
Skill=Understanding
Difficulty=Moderate

M/C Question 3
Behavior consistently found in a species is likely to have a genetic basis that evolved because the behavior has been adaptive. Which of the following human behaviors illustrate this concept?

a) driving a car
b) sending astronauts to the moon
c) Down syndrome
d) language
e) the ability to program a cell phone

ANS: d
Objective=2.1: Describe Darwin's theory of evolution and natural selection
Topic=Evolution and Natural Selection
Skill=Applying
Difficulty=Moderate

M/C Question 4
Darwin's theory of _____ argues that evolution favors those organisms that are best adapted to their environment.

a) encephalization
b) bipedalism
c) specialization
d) natural selection
e) creationism

ANS: d
Objective=2.1: Describe Darwin's theory of evolution and natural selection
Topic=Evolution and Natural Selection
Skill=Understanding
Difficulty=Moderate

M/C Question 5
Darwin's theory of evolution suggests that the only measure of success for a species is

a) being the largest of the species.
b) not competing with members of the same species.
c) possessing the best coloring and shape of the species.
d) successful reproduction.
e) the uniqueness of the species.

ANS: d
Objective=2.1: Describe Darwin's theory of evolution and natural selection
Topic=Evolution and Natural Selection
Skill=Understanding
Difficulty=Moderate

M/C Question 6
In purely evolutionary terms, which one would be a measure of your own success as an organism?

a) your intellectual accomplishments
b) the length of your life
c) the number of children you have
d) the contributions you made to the happiness of humanity
e) your height relative to others in your "clan," or "tribe"

ANS: c
Objective=2.1: Describe Darwin's theory of evolution and natural selection
Topic=Evolution and Natural Selection
Skill=Applying
Difficulty=Difficult

M/C Question 7
Which of the following did you NOT inherit from your parents?

a) religious beliefs
b) tendency toward certain fears
c) temperament
d) hair color
e) certain behavior patterns

ANS: a
Objective=2.2: Illustrate the role of the genotype and the phenotype in making each person a unique individual
Topic=Genetics and Inheritance
Skill=Applying
Difficulty=Moderate

M/C Question 8
Some identical twins have the same genetic makeup but look slightly different. Their slight differences in observable appearance are an example of _____, which are influenced by both biology and environment.

a) genotypes
b) environmental selections
c) phenotypes

d) habitats
e) neurons

ANS: c
Objective=2.2: Illustrate the role of the genotype and the phenotype in making each person a unique individual
Topic=Genetics and Inheritance
Skill=Applying
Difficulty=Moderate

M/C Question 9
Which of the following is a characteristic that might be a part of your phenotype?
a) your height and eye color
b) the members of your family
c) what you have learned in school
d) the childhood diseases you have had
e) the number of chromosomes you have.

ANS: a
Objective=2.2: Illustrate the role of the genotype and the phenotype in making each person a unique individual
Topic=Genetics and Inheritance
Skill=Applying
Difficulty=Difficult

M/C Question 10
Which of the following statements expresses the correct relationship?
a) Genes are made of chromosomes.
b) DNA is made of chromosomes.
c) Nucleotides are made of genes.
d) Genes are made of nucleotides.
e) Genotypes are made of phenotypes.

ANS: d
Objective=2.2: Illustrate the role of the genotype and the phenotype in making each person a unique individual
Topic=Genetics and Inheritance
Skill=Understanding
Difficulty=Moderate

M/C Question 11
_____ neurons carry messages to the brain and are therefore able to help us know about what is going on in our surroundings.
a) Motor

b) Sensory
c) Inter-
d) Sympathetic
e) Peripheral

ANS: b
Objective=2:4: Illustrate how the neurons are the fundamental processing units in our brain
Topic=The Neuron: Building Block of the Nervous System
Skill=Understanding
Difficulty=Easy

M/C Question 12
LaKeisha stepped on a piece of glass and quickly pulled her foot away from that sharp object. Which of the following are responsible for sending a message to the muscles in LaKeisha's foot, resulting in her pulling her foot away from the piece of glass?

a) motor neurons
b) interneurons
c) sensory neurons
d) reflexes
e) spinal neurons

ANS: a
Objective=2:4: Illustrate how the neurons are the fundamental processing units in our brain
Topic=The Neuron: Building Block of the Nervous System
Skill=Applying
Difficulty=Difficult

M/C Question 13
Mary put her hand on a hot stove. Which neuron is responsible for sending a pain message up her spinal column, where it would then enter into the main area of the spinal cord?

a) motor neuron
b) interneuron
c) sensory neuron
d) reflex
e) efferent neuron

ANS: c
Objective=2:4: Illustrate how the neurons are the fundamental processing units in our brain
Topic=The Neuron: Building Block of the Nervous System
Skill=Applying
Difficulty=Moderate

M/C Question 14
Afferent neurons

a) are responsible for delivering messages from the CNS to the muscles and glands.
b) transport messages between sensory neurons and motor neurons.
c) are the same as sensory neurons that are sensitive to external stimuli.
d) communicate directly with motor neurons in the peripheral nervous system.
e) continuously monitor the routine operation of the body's internal functions.

ANS: c
Objective=2:4: Illustrate how the neurons are the fundamental processing units in our brain
Topic=The Neuron: Building Block of the Nervous System
Skill=Understanding
Difficulty=Moderate

M/C Question 15
Motor neurons are also known as _____ neurons.

a) divergent
b) congruent
c) efferent
d) afferent
e) defferent

ANS: c
Objective=2:4: Illustrate how the neurons are the fundamental processing units in our brain
Topic=The Neuron: Building Block of the Nervous System
Skill=Understanding
Difficulty=Moderate

M/C Question 16
Every one of your actions arises from

a) neural impulses delivered from your sensory neurons to your brain.
b) neural impulses from the brain delivered to your muscles.
c) the imperatives of natural selection.
d) the parallel nervous system.
e) sympathetic nervous system activity.

ANS: b
Objective=2:4: Illustrate how the neurons are the fundamental processing units in our brain
Topic=The Neuron: Building Block of the Nervous System
Skill=Applying

Difficulty=Moderate

M/C Question 17
Which of the following is true about interneurons?

a) Interneurons form simple circuits in the brain.
b) There are 200,000 of them for every motor neuron.
c) They are only found in the peripheral nervous system.
d) They are not found in the brain and spinal cord.
e) They relay messages to the brain.

ANS: e
Objective=2:4: Illustrate how the neurons are the fundamental processing units in our brain
Topic=The Neuron: Building Block of the Nervous System
Skill=Understanding
Difficulty=Moderate

M/C Question 18
Dendrite is to axon as:

a) send is to receive.
b) send is to regulate.
c) receive is to send.
d) receive is to release.
e) mimic is to inhibit

ANS: c
Objective=2:4: Illustrate how the neurons are the fundamental processing units in our brain
Topic=The Neuron: Building Block of the Nervous System
Skill=Understanding
Difficulty=Moderate

M/C Question 19
Your teacher asks you to describe the sequence of parts of a neuron that the impulse travels to during neural conduction. Which of the following sequences will you offer?

a) dendrites, axon, soma, terminal button
b) terminal buttons, axon, soma, dendrites
c) axon, soma, dendrites, terminal button
d) dendrites, soma, axon, terminal button
e) neurotransmitters, dendrites, axon, soma

ANS: d
Objective=2:4: Illustrate how the neurons are the fundamental processing units in our brain

Topic=The Neuron: Building Block of the Nervous System
Skill=Applying
Difficulty=Difficult

M/C Question 20
When a cell is at rest, it is in a state called the

a) stopping point.
b) obcipitation junction.
c) resting potential.
d) action potential.
e) refractory potential.

ANS: c
Objective=2:4: Illustrate how the neurons are the fundamental processing units in our brain
Topic=The Neuron: Building Block of the Nervous System
Skill=Understanding
Difficulty=Easy

M/C Question 21
Which of the following is NOT true of neuron function?

a) At rest, the nerve cell has a slight negative charge across the membrane.
b) The action potential is due to positive ions flowing into the neuron.
c) The action potential is a switch from negative to positive potential that moves along the axon membrane.
d) A stimulus will either "fire" the neuron or it will fail to fire it.
e) Nerve cells only use electrical signals to communicate with each other.

ANS: e
Objective=2:4: Illustrate how the neurons are the fundamental processing units in our brain
Topic=The Neuron: Building Block of the Nervous System
Skill=Understanding
Difficulty=Moderate

M/C Question 22
During action potential, the electrical charge inside the neuron is _____ the electrical charge outside the neuron.

a) positive compared to
b) larger than
c) negative compared to
d) smaller than
e) hydrophilic

ANS: a
Objective=2:4: Illustrate how the neurons are the fundamental processing units in our brain
Topic=The Neuron: Building Block of the Nervous System
Skill=Understanding
Difficulty=Moderate

M/C Question 23
When a neuron fires, it fires in a(n) _____ fashion, as there is no such thing as "partial" firing.

a) all-or-none
b) rapid fire
c) accidental patterned
d) quick successioned
e) correlated

ANS: a
Objective=2:4: Illustrate how the neurons are the fundamental processing units in our brain
Topic=The Neuron: Building Block of the Nervous System
Skill=Understanding
Difficulty=Easy

M/C Question 24
During the process of synaptic transmission,

a) information is passed between the two cerebral hemispheres.
b) information is sent from the reticular formation to the cortex.
c) a chemical message is sent across the synapse.
d) a gland releases a hormone into the bloodstream.
e) the neuron becomes silent.

ANS: c
Objective=2:4: Illustrate how the neurons are the fundamental processing units in our brain
Topic=The Neuron: Building Block of the Nervous System
Skill=Understanding
Difficulty=Difficult

M/C Question 25
Isabella is putting mustard on her hot dog. She realizes she has put too much on and sucks up some of it back into the squeeze bottle. This process is similar to

a) the action potential.
b) receptor site bindings.
c) binding specificity.

d) reuptake.
e) the resting potential

ANS: d
Objective=2:4: Illustrate how the neurons are the fundamental processing units in our brain
Topic=The Neuron: Building Block of the Nervous System
Skill=Applying
Difficulty=Difficult

M/C Question 26
Schizophrenia is thought to occur when a person has an imbalance within this particular neurotransmitter system:

a) serotonin
b) endorphins
c) dopamine
d) acetylcholine
e) GABA

ANS: c
Objective=2:4: Illustrate how the neurons are the fundamental processing units in our brain
Topic=The Neuron: Building Block of the Nervous System
Skill=Applying
Difficulty=Difficult

M/C Question 27
The poison of the black widow spider works by stimulating the release of excessive amounts of

a) acetylcholine.
b) dopamine.
c) endorphins.
d) serotonin.
e) GABA.

ANS: a
Objective=2:4: Illustrate how the neurons are the fundamental processing units in our brain
Topic=The Neuron: Building Block of the Nervous System
Skill=Applying
Difficulty=Difficult

M/C Question 28
A person whose brain suffers from a disruption in the serotonin system might suffer from
a) high blood pressure.
b) epilepsy.
c) Parkinson's disease.
d) Alzheimer's disease.
e) obsessive–compulsive disorder.

ANS: e
Objective=2:4: Illustrate how the neurons are the fundamental processing units in our brain
Topic=The Neuron: Building Block of the Nervous System
Skill=Applying
Difficulty=Difficult

M/C Question 29
Disturbances of the neurotransmitter _____ can produce the memory problems associated with Alzheimer's disease.
a) serotonin
b) norepinephrine
c) GABA
d) acetylcholine
e) glutamate

ANS: d
Objective=2:4: Illustrate how the neurons are the fundamental processing units in our brain
Topic=The Neuron: Building Block of the Nervous System
Skill=Applying
Difficulty=Difficult

M/C Question 30
Hallucinogenic drugs, such as LSD, produce their effects via an action on the neurotransmitter
a) dopamine.
b) GABA.
c) endorphin.
d) acetylcholine.
e) serotonin.

ANS: e
Objective=2:4: Illustrate how the neurons are the fundamental processing units in our brain
Topic=The Neuron: Building Block of the Nervous System

Skill=Understanding
Difficulty=Moderate

M/C Question 31
Jack suffered a brain injury as a result of hitting his head while waterskiing. One of the problems that developed was that Jack could not pronounce certain words correctly for a long period of time until he had extensive speech therapy and can now speak as he did before his accident. This is an example of the brain's _____, which allowed the structure and function of his brain cells to change to adjust to the trauma.

a) adaptology
b) stagnation
c) plasticity
d) reflex arc
e) reflexology

ANS: c
Objective=2:4: Illustrate how the neurons are the fundamental processing units in our brain
Topic=The Neuron: Building Block of the Nervous System
Skill=Applying
Difficulty=Moderate

M/C Question 32
Peter suffers damage to his left frontal lobe and loses the ability to speak, although he can still understand speech. Despite the permanence of this damage, he is able to recover some of his speech due to the ability of other parts of the brain to take over the lost function. This phenomenon is known by neuroscientists as

a) flexibility.
b) adaptiveness.
c) plasticity.
d) compensation.
e) homeostasis.

ANS: c
Objective=2:4: Illustrate how the neurons are the fundamental processing units in our brain
Topic=The Neuron: Building Block of the Nervous System
Skill=Applying
Difficulty=Moderate

M/C Question 33
Which of the following is true about myelin?

a) It's a fatty insulation.
b) It is covered by axons.
c) It inhibits neural communication.
d) It slows down neuronal operations.
e) It cannot be affected by illness.

ANS: a
Objective=2:4: Illustrate how the neurons are the fundamental processing units in our brain
Topic=The Neuron: Building Block of the Nervous System
Skill=Understanding
Difficulty=Easy

M/C Question 34
Multiple sclerosis is a disease that involves problems with the

a) dendrites.
b) soma, or cell body.
c) axon.
d) myelin sheath.
e) terminal buttons.

ANS: d
Objective=2:4: Illustrate how the neurons are the fundamental processing units in our brain
Topic=The Neuron: Building Block of the Nervous System
Skill=Applying
Difficulty=Difficult

M/C Question 35
Your ability to smell pizza in the oven and to then remove and eat that pizza is due to the activity of the

a) parietal lobe of your brain.
b) occipital lobe of your brain.
c) autonomic nervous system.
d) parasympathetic nervous system.
e) somatic nervous system.

ANS: e
Objective=2.5: Distinguish between the central nervous system and the peripheral nervous system
Topic=The Nervous System
Skill=Applying

Difficulty=Difficult

M/C Question 36
Your ability to play the piano is regulated by the
a) somatic nervous system.
b) medial nervous system.
c) peripheral nervous system.
d) limbic system.
e) parasympathetic nervous system.

ANS: a
Objective=2.5: Distinguish between the central nervous system and the peripheral nervous system
Topic=The Nervous System
Skill=Applying
Difficulty=Difficult

M/C Question 37
When you see someone you have a crush on and your heart pounds, your hands get sweaty, and your cheeks feel hot, your _____ is/are active.
a) skeletal nervous system
b) spinal reflexes
c) autonomic nervous system
d) somatic nervous system
e) interneurons

ANS: c
Objective=2.5: Distinguish between the central nervous system and the peripheral nervous system
Topic=The Nervous System
Skill=Applying
Difficulty=Difficult

M/C Question 38
Which of the following is controlled by the autonomic nervous system?
a) respiration
b) reasoning
c) reading
d) reaching
e) running

ANS: a
Objective=2.5: Distinguish between the central nervous system and the peripheral nervous system

Topic=The Nervous System
Skill=Applying
Difficulty=Moderate

M/C Question 39
"Fight-or-flight" behavior is associated with
a) the parasympathetic division.
b) motor neurons.
c) the sympathetic division.
d) the somatic nervous system.
e) interneurons.

ANS: c
Objective=2.5: Distinguish between the central nervous system and the peripheral nervous system
Topic=The Nervous System
Skill=Understanding
Difficulty=Easy

M/C Question 40
_____ is an example of a sympathetic response.
a) Promoting your sexual development
b) Monitoring the operation of the body's routine functioning
c) Picking up a dime off the floor
d) Preparing yourself to fight an attacking dog
e) Figuring out the answer to a difficult test question

ANS: d
Objective=2.5: Distinguish between the central nervous system and the peripheral nervous system
Topic=The Nervous System
Skill=Applying
Difficulty=Difficult

M/C Question 41
Malcolm is studying alone in his room late at night when he hears a loud noise downstairs. His heartbeat increases significantly and his breathing becomes shallow. He wonders if a burglar has entered the house and decides to investigate. When he gets downstairs he discovers his cat has knocked over a plant stand. His body begins to relax and return to normal. Which part of his nervous system is responsible for returning Malcolm to a normal state?
a) spinal cord
b) somatic nervous system
c) sympathetic nervous system

d) parasympathetic nervous system
e) corpus callosum

ANS: d
Objective=2.5: Distinguish between the central nervous system and the peripheral nervous system
Topic=The Nervous System
Skill=Applying
Difficulty=Difficult

M/C Question 42
The idea that the pituitary gland is the "master gland"
a) is completely accurate and appropriate.
b) is completely inaccurate since it doesn't control any other glands or related structures.
c) is true; yet, it is still controlled by the brain.
d) is a matter of debate because many other researchers refer to the adrenal gland as the "master gland."
e) is inaccurate because the "pituitary" gland does not exist in higher animals. It is only found in lower species.

ANS: c
Objective=2.6: Examine how hormones serve as the communication channel among the glands of the endocrine system
Topic=The Endocrine System
Skill=Understanding
Difficulty=Easy

M/C Question 43
The sexual desire of a woman is primarily determined by hormones produced by her
a) thyroid.
b) ovaries.
c) posterior pituitary.
d) adrenal glands.
e) pancreas.

ANS: d
Objective=2.6: Examine how hormones serve as the communication channel among the glands of the endocrine system
Topic=The Endocrine System
Skill=Applying
Difficulty=Moderate

M/C Question 44
Tim is overweight. His physician has decided to test him to see if there is a problem with the regulation of his metabolism. Which endocrine gland will be the focus of diagnostic testing?

a) adrenal
b) thymus
c) thyroid
d) pancreas
e) pituitary

ANS: c
Objective=2.6: Examine how hormones serve as the communication channel among the glands of the endocrine system
Topic=The Endocrine System:
Skill=Applying
Difficulty=Difficult

M/C Question 45
Agonist is to antagonist as:

a) neuromodulator is to neurotransmitter.
b) reuptake is to receptor.
c) mimic is to block.
d) block is to mimic.
e) inhibit is to stimulate.

ANS: c
Objective=2.6: Examine how hormones serve as the communication channel among the glands of the endocrine system
Topic=The Endocrine System:
Skill=Understanding
Difficulty=Moderate

M/C Question 46
Which of the following is true of Prozac?

a) Prozac can cause changes in sleep, appetite, and thinking.
b) Amphetamine is another name for Prozac.
c) The effects of Prozac are specific to mood.
d) Prozac is an antagonist for dopamine receptors.
e) All of these answers are correct.

ANS: a
Objective=2.6: Examine how hormones serve as the communication channel among the glands of the endocrine system
Topic=The Endocrine System:
Skill=Applying

Difficulty=Moderate

M/C Question 47
Phineas Gage tragically had a tamping iron propelled through his head. Both the left and right sides of the prefrontal cortex were severely damaged. As a result of the accident, Phineas Gage

a) died from his injuries.
b) suffered the loss of his arms and legs.
c) lost his sense of hearing.
d) suffered a change in personality.
e) suffered complex seizures for the rest of his life.

ANS: d
Objective=2.7: Outline how the brain sees the outside world through changing patterns of electrochemical activity
Topic=Windows on the Brain
Skill=Applying
Difficulty=Difficult

M/C Question 48
Libby's physician refers her to a medical center in order to have the biochemical activity in her brain analyzed. She is given an injection of a radioactive glucose-like substance and then is told to lie down with her head in a scanner. The technique being used is

a) positron emission tomography.
b) functional magnetic resonance imaging.
c) microelectrode recording.
d) an electroencephalogram.
e) an electromyography.

ANS: a
Objective=2.7: Outline how the brain sees the outside world through changing patterns of electrochemical activity
Topic=Windows on the Brain
Skill=Applying
Difficulty=Difficult

M/C Question 49
A unique feature of the fMRI, as compared to the MRI, is the capacity to

a) detect cell activity throughout the brain.
b) measure the magnetic fields in the brain.
c) control brain activity by stimulating various brain regions.
d) take a detailed X-ray of the brain while the person is conscious.
e) distinguish more active tissues from less active ones.

ANS: e
Objective=2.7: Outline how the brain sees the outside world through changing patterns of electrochemical activity
Topic=Windows on the Brain
Skill=Understanding
Difficulty=Moderate

M/C Question 50
Our ability to breathe is controlled by the _____, which is located within the _____.
a) medulla; brainstem
b) thalamus; forebrain
c) cerebellum; midbrain
d) brain stem; medulla
e) pons; forebrain

ANS: a
Objective=2.8: Illustrate how the limbic system and the cerebrum have evolved over the brain stem in human beings and other mammals
Topic=Three Layers of the Brain
Skill=Applying
Difficulty=Moderate

M/C Question 51
Since Jessica suffered a head injury in a car accident 3 months ago, she has not experienced dreams as she had in the past. She used to dream vivid, active dreams. Which part of her brain most likely was affected during the car accident and is related to her problem dreaming?
a) pons
b) cerebellum
c) cerebral cortex
d) pituitary gland
e) medulla

ANS: a
Objective=2.8: Illustrate how the limbic system and the cerebrum have evolved over the brain stem in human beings and other mammals
Topic=Three Layers of the Brain
Skill=Applying
Difficulty=Difficult

M/C Question 52
Hearing a bird sing involves the transfer of auditory information from the ear through _____ en route to the auditory cortex.
a) the pons
b) the hypothalamus

c) the thalamus
d) the auditory hemisphere
e) Broca's area

ANS: c
Objective=2.8: Illustrate how the limbic system and the cerebrum have evolved over the brain stem in human beings and other mammals
Topic=Three Layers of the Brain
Skill=Applying
Difficulty=Difficult

M/C Question 53
The _____ is important for the human ability to tap dance and walk on a tightrope.
a) hypothalamus
b) thalamus
c) amygdala
d) cerebellum
e) hippocampus

ANS: d
Objective=2.8: Illustrate how the limbic system and the cerebrum have evolved over the brain stem in human beings and other mammals
Topic=Three Layers of the Brain
Skill=Applying
Difficulty=Moderate

M/C Question 54
Tracey has been unable to participate in her gymnastics class and is very uncoordinated since she was involved in an accident where she suffered a head injury. As a result of the accident, she was likely to have suffered damage to her
a) cerebellum.
b) medulla.
c) cerebral cortex.
d) hypothalamus.
e) hippocampus.

ANS: a
Objective=2.8: Illustrate how the limbic system and the cerebrum have evolved over the brain stem in human beings and other mammals
Topic=Three Layers of the Brain
Skill=Applying
Difficulty=Moderate

M/C Question 55
Damage to the _____ would be expected to impair your ability to name three exciting news events that occurred after this damage to your brain.

a) hippocampus
b) reticular formation
c) corpus callosum
d) thalamus
e) hypothalamus

ANS: a
Objective=2.8: Illustrate how the limbic system and the cerebrum have evolved over the brain stem in human beings and other mammals
Topic=Three Layers of the Brain
Skill=Applying
Difficulty=Moderate

M/C Question 56
A person who has suffered damage to his hippocampus would be expected to have difficulty with

a) remembering newer information.
b) remembering events from his distant past.
c) concentrating on complex tasks.
d) controlling his temper.
e) moving in a smooth manner.

ANS: a
Objective=2.8: Illustrate how the limbic system and the cerebrum have evolved over the brain stem in human beings and other mammals
Topic=Three Layers of the Brain
Skill=Applying
Difficulty=Difficult

M/C Question 57
A person whose hippocampus is damaged would probably struggle most with which of the following?

a) eating
b) attending college.
c) controlling emotions.
d) reasoning and planning for the future.
e) performing smooth movements.

ANS: b
Objective=2.8: Illustrate how the limbic system and the cerebrum have evolved over the brain stem in human beings and other mammals

Topic=Three Layers of the Brain
Skill=Applying
Difficulty=Moderate

M/C Question 58
Which of the following situations is NOT processed primarily by the limbic system?

a) You remember how your grandmother's living room looked.
b) You get angry and want to hit a person who has just bumped into you.
c) You are feeling hungry because you have not eaten since yesterday.
d) You are trying to reason through a logic problem in math class.
e) You feel sexually aroused by the attractiveperson sitting next to you.

ANS: d
Objective=2.8: Illustrate how the limbic system and the cerebrum have evolved over the brain stem in human beings and other mammals
Topic=Three Layers of the Brain
Skill=Applying
Difficulty=Difficult

M/C Question 59
A stroke that damages parts of your amygdala would be expected to

a) calm your angry disposition.
b) stimulate an aggressive instinct.
c) increase your sexual desire.
d) erase important memories.
e) make you feel hungry.

ANS: a
Objective=2.8: Illustrate how the limbic system and the cerebrum have evolved over the brain stem in human beings and other mammals
Topic=Three Layers of the Brain
Skill=Applying
Difficulty=Difficult

M/C Question 60
Joella was rollerblading when a cat jumped right in front of her, causing her to trip and fall. When she fell, she partially landed on the front side of her head near her forehead. Shortly afterward, Joella exhibited symptoms similar to that of Phineas Gage. Which lobe would have been most affected by this fall?

a) frontal
b) temporal
c) parietal
d) occipital
e) inguinal

ANS: a
Objective=2.9: Identify the contribution of the famous Austrian physician Franz Joseph Gall with respect to his doctrine of localization of function
Topic=Lobes of the Cerebral Cortex
Skill=Applying
Difficulty=Moderate

M/C Question 61
Damage to the _____ is the most likely explanation for a brain injury that has devastating effects on human action and personality.

a) central fissure
b) frontal lobes
c) lateral fissure
d) parietal cortex
e) temporal lobes

ANS: b
Objective=2.9: Identify the contribution of the famous Austrian physician Franz Joseph Gall with respect to his doctrine of localization of function
Topic=Lobes of the Cerebral Cortex
Skill=Applying
Difficulty=Moderate

M/C Question 62
The action of grabbing your keys with your right hand is controlled by your

a) right somatosensory cortex.
b) left motor cortex.
c) association cortex.
d) frontal lobes.
e) right motor cortex.

ANS: b
Objective=2.9: Identify the contribution of the famous Austrian physician Franz Joseph Gall with respect to his doctrine of localization of function
Topic=Lobes of the Cerebral Cortex
Skill=Applying
Difficulty=Moderate

M/C Question 63
You are holding an ice cube in your left hand. You touch it and find that it is hard and slick and cold. Soon the coldness becomes painful. Most of this information is processed in which cortex?

a) motor

b) association
c) somatosensory
d) visual
e) temporal

ANS: c
Objective=2.9: Identify the contribution of the famous Austrian physician Franz Joseph Gall with respect to his doctrine of localization of function
Topic=Lobes of the Cerebral Cortex
Skill=Applying
Difficulty=Difficult

M/C Question 64
The _____ cortex is most likely involved in making a decision as to whether we want to ask an attractive person out for a date.
a) auditory
b) parietal
c) somatosensory
d) association
e) motor

ANS: d
Objective=2.9: Identify the contribution of the famous Austrian physician Franz Joseph Gall with respect to his doctrine of localization of function
Topic=Lobes of the Cerebral Cortex
Skill=Applying
Difficulty=Moderate

M/C Question 65
Researchers have determined that the processing style of the _____ hemisphere is more _____ than the _____ hemisphere.
a) left; analytical; right
b) right; analytical; left
c) right; specialized for language; left
d) left; specialized for music; right
e) left; spatially-oriented; right

ANS: a
Objective=2.10: Contrast between the left hemisphere and the right hemisphere of the brain with respect to the functions that they primarily control
Topic=Cerebral Dominance
Skill=Applying
Difficulty=Difficult

M/C Question 66
Gazzaniga suggests that we think of the human mind as neither a single nor a dual entity but rather as a _____ of minds.

a) confederation
b) consolidation
c) confabulation
d) consequence
e) continuation

ANS: a
Objective=2.10: Contrast between the left hemisphere and the right hemisphere of the brain with respect to the functions that they primarily control
Topic=Cerebral Dominance
Skill=Understanding
Difficulty=Moderate

Essay

Essay Question 67
Compare the endocrine and nervous systems in terms of how they communicate information throughout the body.

ANS: The endocrine system secretes hormones into the bloodstream that reach many distant target organs, whereas the faster-acting nervous system relays information to and from the brain and spinal cord. Nerve transmitters have a more focused action.
Objective=2.5: Distinguish between the central nervous system and the peripheral nervous system
Topic=The Nervous System
Skill=Evaluate
Difficulty=Difficult

Essay Question 68
Explain how psychoactive drugs work in the brain and explain why each drug has important side effects.

ANS: Psychoactive drugs generally interact with neuron-signaling pathways. Such drugs can increase the release of transmitter molecules into the cleft or can block transmitter reuptake (both of which will increase the synaptic transmitter level). A second mechanism involves the drug directly activating/inactivating postsynaptic receptors. Because a single transmitter may be used in multiple brain pathways, a drug that passes throughout the brain may generate multiple behavioral effects.
Objective=2.6: Examine how hormones serve as the communication channel among the glands of the endocrine system
Topic=The Endocrine System

Skill=Evaluate
Difficulty=Moderate

Essay Question 69
Discuss the phenomenon of cerebral dominance and contrast the specialized functions of each of the two cerebral hemispheres.

ANS: The student should note that although the two hemispheres (halves) of the brain appear to be mirror images, each has specialized functions. For example, vocabulary, memory for words and numbers, anxiety and emotion, and movement sequences are mainly controlled by the left hemisphere. Conversely, the right hemisphere controls such tasks as facial recognition, music and shape memory, and emotional responsiveness.
Objective=2.10: Contrast between the left hemisphere and the right hemisphere of the brain with respect to the functions that they primarily control
Topic=Cerebral Dominance
Skill=Analyze
Difficulty=Moderate

Multiple Choice Single Select

M/C Question 70
Most people are aware that regular aerobic exercise helps to reduce obesity and prevent the development of some forms of diabetes. Recent research finds that the mechanism may not just be through sweating off the pounds, but rather that such exercise may silence genes associated with these health problems. This demonstrates the importance of the science of

a) heredity.
b) evolutionary psychology.
c) behavioral medicine.
d) the human genome project.
e) epigenetics.

ANS: e
Objective=2.3: Explain how the science of epigenetics illuminates the way environmental forces alter gene expression
Topic=The Brave New World of Epigenetics
Skill=Understanding
Difficulty=Hard

M/C Question 71
Research notes that extensive exposure to pornography can have significant negative effects on the brain as a result of neurological rewiring. It appears that this plasticity can be reversed through a process called *rebooting*. What does this involve?

a) refraining from watching hardcore pornography and concurrent masturbation for at least a couple of months

b) selecting porn that is less aggressive and that promotes more egalitarian sexual relationships between partners
c) watching pornography only with a partner so that it can promote intimacy rather than solo sexuality
d) utilizing pornography only in cases of sexual dysfunction, such as erectile problems or arousal disorders
e) watching pornography at an *increased* level to facilitate habituation and eventual boredom

ANS: a
Objective=2.4: Describe the communication and developmental processes of the neuron
Topic=The Neuron: Building Block of the Nervous System
Skill=Remembering
Difficulty=Hard

M/C Question 72
Mehnaz has recently felt as if her thoughts are disjointed and choppy. "I don't know," she says. "My thinking just doesn't feel as fluid and continuous as it used to." Mehnaz may be having difficulties with the functioning of her
a) pons.
b) cerebellum.
c) reticular formation.
d) putamen.
e) insula.

ANS: b
Objective=2.8: Explain the roles of the brainstem, the limbic system, and the cerebrum
Topic=Three Layers of the Brain
Skill=Applying
Difficulty=Hard

M/C Question 73
A patient who is paralyzed and can no longer control her hands or arms may benefit from a brain implant in the _____ cortex. This sort of technology may help her regain some control over smooth movements of these extremities.
a) olfactory
b) gustatory
c) somatosensory
d) motor
e) corporeal

ANS: d
Objective=2.4: Describe the communication and developmental processes of the neuron
Topic=The Neuron: Building Block of the Nervous System

Skill=Applying
Difficulty=Easy

M/C Question 74
Though the research into how mirror neurons work has produced significant speculation about the relationship of these neurons to _____, some argue that these lines of reasoning may ignore the fact that correlation does not prove causation between two variables.

a) autism spectrum disorder
b) schizophrenia
c) major depression
d) generalized anxiety disorder
e) body dysmorphic disorder

ANS: a
Objective=2.9: Distinguish the unique functions of each lobe of the cerebral cortex
Topic=Lobes of the Cerebral Cortex
Skill=Conceptual
Difficulty=Medium

M/C Question 75
Over many millions of years, the human species has changed to adapt to its environment. As an example, this process of change has favored larger brains to allow for the use of language, complex problem solving, and social interaction. This process is called

a) heredity.
b) genetics.
c) evolution.
d) adaptation.
e) mutation.

ANS: c
Objective=Core Concept 2.1
Topic=Key Question: How Are Genes and Behavior Linked?
Skill=Remembering
Difficulty=Easy

M/C Question 76
The pituitary, thyroid, and adrenal glands, as well as the gonads, are all part of a slower communication system in the body called the _____ system.

a) nervous
b) neurological
c) reproductive
d) excretory
e) endocrine

ANS: e
Objective=Core Concept 2.2
Topic=Key Question: How Does the Body Communicate Internally?
Skill=Remembering
Difficulty=Easy

M/C Question 77
Zach and Stephanie want to have a child, but they are concerned. Stephanie's grandmother and mother both died of breast cancer, and Stephanie has been tested and found to have the gene for this fatal condition. Having a child does not ensure that the illness could be passed, but they want to reduce the risk of passing on this gene to their child. What technique might be used to achieve this goal?

a) preimplantation genetic diagnosis
b) karyotyping
c) embryonic genetic manipulation
d) fetal genetic cloning
e) creating a "savior sibling"

ANS: a
Objective=Core Concept 2.1
Topic=Psychology Matters: Choosing Your Children's Genes
Skill=Applying
Difficulty=Medium

M/C Question 78
A drug or medication that keeps neurotransmitters available in the synapse for an extra amount of time is blocking a process called

a) excitation.
b) inhibition.
c) potentiation.
d) reuptake.
e) neuromodulation.

ANS: d
Objective=Core Concept 2.2
Topic=Psychology Matters: How Psychoactive Drugs Affect the Nervous System
Skill=Remembering
Difficulty=Medium

M/C Question 79
Which of the following individuals is MOST likely to suffer a traumatic brain injury?

a) Sophie, who is a gymnast specializing in the balance beam.
b) Bar, who is a world class skateboard champion and competes in the X-Games each year.

c) Liam, who is the starting quarterback for his high school football team.
d) Jared, who is in an automobile accident.
e) Heather, who is a dancer and is often involved in throws and lifts during a performance.

ANS: d
Objective=Core Concept 2.3
Topic=Psychology Matters: Contact Sports and Traumatic Brain Injury
Skill=Applying
Difficulty=Medium