

Name: _____ Date: _____

1. A person whose hand had been amputated actually felt sensations on his nonexistent fingers when his face was stroked. This best illustrates the consequences of
 - A) lateralization.
 - B) hemispherectomy.
 - C) brain plasticity.
 - D) aphasia.
 - E) tomography.

2. Evolutionary psychology studies the evolution of behavior and the mind using principles of
 - A) interaction.
 - B) natural selection.
 - C) psychotherapy.
 - D) humanistic psychology.
 - E) self-regulation.

3. To identify which specific brain areas are most active during a particular mental task, researchers would be most likely to make use of a(n)
 - A) ACh agonist.
 - B) fMRI.
 - C) MRI.
 - D) hemispherectomy.
 - E) brain lesion.

4. Information is most quickly transmitted from one cerebral hemisphere to the other by the
 - A) angular gyrus.
 - B) medulla.
 - C) reticular formation.
 - D) corpus callosum.
 - E) limbic system.

5. Chromosomes are composed of
 - A) synapses.
 - B) neurotransmitters.
 - C) deoxyribonucleic acid.
 - D) nuclei.
 - E) hormones.

6. The capacity of one brain area to take over the functions of another damaged brain area is known as brain
 - A) phrenology.
 - B) plasticity.
 - C) aphasia.
 - D) tomography.
 - E) hemispherectomy.

7. Schizophrenia is most closely linked with excess receptor activity for the neurotransmitter
 - A) epinephrine.
 - B) serotonin.
 - C) dopamine.
 - D) GABA.
 - E) acetylcholine.

8. The secretions of the pituitary gland are most directly regulated by the
 - A) cerebellum.
 - B) thalamus.
 - C) hypothalamus.
 - D) amygdala.
 - E) reticular formation.

9. Evolutionary psychologists are most likely to be criticized for
 - A) overestimating cultural differences in human sexual behaviors.
 - B) underestimating gender differences in mate selection.
 - C) failing to consider unconscious motivations.
 - D) providing hindsight explanations for human behaviors.
 - E) overemphasizing humans' capacity to learn and adapt to a variety of environments.

10. Neurotransmitters are chemical messengers that travel across the
 - A) axon.
 - B) myelin sheath.
 - C) threshold.
 - D) cell body.
 - E) synaptic gap.

11. Which brain area is primarily involved with controlling speech?
- A) angular gyrus
 - B) association areas
 - C) hypothalamus
 - D) sensory cortex
 - E) Broca's area
12. The master gland of the endocrine system is the
- A) pancreas.
 - B) hypothalamus.
 - C) thyroid gland.
 - D) adrenal gland.
 - E) pituitary gland.
13. The parietal lobes are to _____ as the occipital lobes are to _____.
- A) sensing pleasure; sensing pain
 - B) speaking; seeing
 - C) sensing touch; seeing
 - D) hearing; speaking
 - E) tasting; smelling
14. For you to be able to run, _____ must relay messages from your central nervous system to your leg muscles.
- A) sensory neurons
 - B) the autonomic nervous system
 - C) agonists
 - D) motor neurons
 - E) interneurons
15. A football quarterback can simultaneously make calculations of receiver distances, player movements, and gravitational forces. This best illustrates the activity of multiple
- A) neural networks.
 - B) thresholds.
 - C) endorphin agonists.
 - D) endocrine glands.
 - E) endorphin antagonists.

16. Prozac, a drug commonly prescribed to treat depression, prevents the sending neuron from taking in excess serotonin. Which process does this drug prevent from taking place?
- A) reuptake
 - B) the all-or-none response
 - C) an action potential
 - D) a refractory period
 - E) depolarization
17. The knee-jerk reflex is controlled by interneurons in the
- A) spinal cord.
 - B) resting potential.
 - C) neurotransmitters.
 - D) action potential.
 - E) endocrine system.
18. Your life would be most immediately threatened if you suffered destruction of the
- A) hippocampus.
 - B) corpus callosum.
 - C) medulla.
 - D) angular gyrus.
 - E) amygdala.
19. In transmitting sensory information to the brain, an electrical signal travels from the _____ of a single neuron.
- A) axon to the dendrites to the cell body
 - B) dendrites to the cell body to the axon
 - C) cell body to the axon to the dendrites
 - D) axon to the cell body to the dendrites
 - E) dendrites to the axon to the cell body
20. Heritability refers to the extent to which
- A) nurture controls a trait rather than nature.
 - B) trait differences among individuals are attributable to genetic variations.
 - C) unrelated individuals share common genes.
 - D) genetic mutations can be transmitted to one's offspring.
 - E) adult personality is determined by infant personality.

21. Which of the following describes evidence for the brain's dual-processing ability?
- A) The cerebral cortex is divided into two sets of lobes on each hemisphere.
 - B) The amygdala shares responsibility for some basic emotions with the hypothalamus and endocrine system.
 - C) The corpus callosum allows impulses to travel between the two hemispheres.
 - D) The right occipital lobe perceives stimuli from our left visual field.
 - E) The brainstem keeps our heart beating while the cerebral cortex maintains awareness of the outside world.
22. The study of the relative power and limits of genetic and environmental influences on behavior and personality traits is known as
- A) behavior genetics.
 - B) natural selection.
 - C) evolutionary psychology.
 - D) genome research.
 - E) molecular genetics.
23. Research suggests that young men prefer older women, mid-twenties men prefer women their own age, and older men prefer younger women. Based on this finding, evolutionary psychologists suggest that men
- A) are attracted to women with peak fertility.
 - B) are less concerned with sending their genes into the future.
 - C) view sex as being more relational.
 - D) prefer mates who are interested in long-term relationships.
 - E) have a higher threshold for perceiving warm responses as sexual.
24. The minimum level of stimulation required to trigger a neural impulse is called the
- A) refractory period.
 - B) reflex.
 - C) action potential.
 - D) threshold.
 - E) synapse.
25. Resting potential is to action potential as _____ is to _____.
- A) dendrite; axon
 - B) polarization; depolarization
 - C) sensory neuron; motor neuron
 - D) adrenal gland; pituitary gland
 - E) temporal lobe; occipital lobe

26. Alzheimer's disease is most closely linked to the deterioration of neurons that produce
- A) acetylcholine.
 - B) endorphins.
 - C) dopamine.
 - D) glutamate.
 - E) epinephrine.
27. Surgical destruction of brain tissue is called a(n)
- A) EEG.
 - B) MRI.
 - C) lesion.
 - D) endorphin.
 - E) synapse.
28. Within a single neuron the action potential
- A) depends on the movement of charged calcium atoms.
 - B) is generated in the dendrites.
 - C) crosses the synapse to the adjacent neurons.
 - D) will be slower if myelin is present.
 - E) travels in one direction toward the axon terminals.
29. An all-or-none response pattern is characteristic of the
- A) activation of either the sympathetic or the parasympathetic system.
 - B) release of hormones into the bloodstream.
 - C) initiation of neural impulses.
 - D) excitation of the antagonistic hormonal system.
 - E) release of endorphins into the central nervous system.
30. What are the molecules that are similar enough to a neurotransmitter to bind to its receptor sites on a dendrite and mimic that neurotransmitter's effects called?
- A) endorphins
 - B) action potentials
 - C) antagonists
 - D) agonists
 - E) endocrines

31. Adopted children are more likely to demonstrate levels of agreeableness and extraversion, more similar to that of their biological parents than their adoptive parents. This finding suggests that personality traits are more strongly influenced by
- A) genes than by the home environment.
 - B) nurture than by nature.
 - C) home environment than by genes.
 - D) genes than by heredity.
 - E) environmental relatives than by genetic relatives.
32. A synapse is a(n)
- A) automatic response to sensory input.
 - B) neural cable containing many axons.
 - C) junction between a sending neuron and a receiving neuron.
 - D) chemical messenger that triggers muscle contractions.
 - E) neural network.
33. Your friend is taking her first psychology class. She comes to you saying, "I don't understand why we are studying the brain; I thought this was a psychology class." Because of your background in psychology, your best response should be
- A) "Everything psychological is simultaneously biological."
 - B) "It's been known since Aristotle's time that the brain is the center of intelligence and thought."
 - C) "Being able to name the parts of the brain helps us understand the basis of behavior."
 - D) "Science has demonstrated that Plato's belief in the heart as the origin of emotion is correct."
 - E) "Phrenologists established the importance of studying the physical brain to understand mental abilities."
34. Thinking about sex (in your brain's cerebral cortex) can stimulate a region of the limbic system to secrete hormones. These hormones trigger the pituitary gland to influence hormones released by other glands in the body. Which brain region influences the endocrine system?
- A) thalamus
 - B) reticular formation
 - C) hypothalamus
 - D) hippocampus
 - E) amygdala

35. The chemical messengers of the endocrine system are called
- A) hormones.
 - B) agonists.
 - C) interneurons.
 - D) antagonists.
 - E) neurotransmitters.
36. Hormones are the chemical messengers of the
- A) endocrine system.
 - B) peripheral nervous system.
 - C) autonomic nervous system.
 - D) central nervous system.
 - E) action potential.
37. Motor neurons are to the _____ nervous system as interneurons are to the _____ nervous system.
- A) autonomic; somatic
 - B) sympathetic; parasympathetic
 - C) parasympathetic; sympathetic
 - D) peripheral; central
 - E) central; peripheral
38. Fraternal twins originate from the fertilization of
- A) two egg cells by two sperm cells.
 - B) a single egg cell by a single sperm cell.
 - C) a divided egg cell and one sperm cell.
 - D) a single egg cell by two sperm cells.
 - E) two egg cells by a single sperm cell.
39. Nerves are neural cables containing many
- A) axons.
 - B) lesions.
 - C) hormones.
 - D) endorphins.
 - E) interneurons.

40. The nineteenth-century theory that bumps on the skull reveal a person's abilities and traits is called
- A) molecular biology.
 - B) phrenology.
 - C) biological psychology.
 - D) behavior genetics.
 - E) evolutionary psychology.
41. Who are likely to show the greatest similarity in personality?
- A) Larry and Laura, brother and sister
 - B) Elizabeth and Betsy, mother and daughter
 - C) Vincent Sr. and Vincent Jr., father and son
 - D) Philip and Paul, fraternal twins
 - E) Ruth and Ramona, identical twins
42. Which brain structure receives information from all the senses except smell?
- A) pons
 - B) hippocampus
 - C) medulla.
 - D) amygdala
 - E) thalamus
43. Evolutionary psychologists would be most likely to attribute gender differences in attitudes toward sex to the fact that men have _____ than do women.
- A) greater reproductive potential
 - B) more insecurities
 - C) stronger personalities
 - D) a weaker sense of empathy
 - E) larger bodies
44. In 1848, Phineas Gage, a railroad construction foreman, survived when an explosion drove an iron rod through his head. The once friendly, soft-spoken Gage became irritable and dishonest. Gage's case provided evidence that which region of the brain plays a role in personality and behavior?
- A) sensory cortex
 - B) frontal lobes
 - C) parietal lobes
 - D) Broca's area
 - E) temporal lobes

45. The depolarization of a neural membrane can create a(n)
- A) lesion.
 - B) action potential.
 - C) neural network.
 - D) interneuron.
 - E) myelin sheath.
46. Ellen volunteers during her AP psychology class to try to balance a yardstick on her two fingers. While her eyes are open, she finds the task quite easy. However, when she closes her eyes, she finds the same task almost impossible. Which brain region relies on visual information in coordinating our voluntary movements?
- A) amygdala
 - B) hypothalamus
 - C) reticular formation
 - D) cerebellum
 - E) thalamus
47. Neurotransmitters are released from vesicles located on knoblike terminals at the end of the
- A) synapse.
 - B) myelin sheath.
 - C) dendrites.
 - D) axon.
 - E) cell body.
48. Which brain area is primarily involved with understanding and producing meaningful speech?
- A) hypothalamus
 - B) sensory cortex
 - C) Wernicke's area
 - D) angular gyrus
 - E) association areas
49. For you to experience the pain of a sprained ankle, _____ must first relay messages from your ankle to your central nervous system.
- A) sensory neurons
 - B) glands
 - C) endocrines
 - D) interneurons
 - E) motor neurons

Unit 3 REVIEW

50. The occipital lobes are to _____ as the temporal lobes are to _____.
- A) sensing pleasure; sensing pain
 - B) hearing; sensing movement
 - C) seeing; hearing
 - D) speaking; hearing
 - E) seeing; sensing touch

Answer Key

1. C
2. B
3. B
4. D
5. C
6. B
7. C
8. C
9. D
10. E
11. E
12. E
13. C
14. D
15. A
16. A
17. A
18. C
19. B
20. B
21. E
22. A
23. A
24. D
25. B
26. A
27. C
28. E
29. C
30. D
31. A
32. C
33. A
34. C
35. A
36. A
37. D
38. A
39. A
40. B
41. E
42. E
43. A
44. B

Unit 3 REVIEW

- 45. B
- 46. D
- 47. D
- 48. C
- 49. A
- 50. C