Bryant-Taneda: AP Psychology Test Bank – Biology and Psychology (Chap 2)

1. The gland that regulates body growth is the:
A) adrenal.
B) thyroid.
C) hypothalamus.
D) pituitary.
E) hyperthyroid.

2. The process of anticipating that you will be punished for misbehaving takes place within the:
A) limbic system.
B) sensory cortex.
C) reticular formation.
D) association areas.
E) sympathetic nervous system.

3. Dr. Weber does research on the potential relationship between sex hormones and emotional behavior. Which psychological specialty does Dr. Weber's research best represent?
A) phrenology
B) biological psychology
C) psychoanalysis
D) clinical psychology

4. The function of dendrites is to:
A) receive incoming signals from other neurons.
B) release neurotransmitters into the spatial junctions between neurons.
C) coordinate the activation of the parasympathetic and sympathetic nervous systems.
D) control pain through the release of opiatelike chemicals into the brain.

5. Heartbeat, digestion, and other self-regulating bodily functions are governed by the:
A) voluntary nervous system.
B) autonomic nervous system.
C) sympathetic division of the autonomic nervous system.
D) somatic nervous system.
E) central nervous system.

6. The knee-jerk reflex is controlled by interneurons in the:
A) limbic system.
B) spinal cord.
C) brainstem.
D) cerebellum.

7. The endocrine system consists of:
A) glial cells.
B) neural networks.
C) interneurons.
D) glands.

8. Which of the following is NOT a correct description of a brain research technique?

A) using a PET scan to examine the brain's structure
B) using the EEG to record the brain's electrical activity
C) using MRI to examine the brain's structure
D) using a CT scan to examine the brain's structure

9. Moruzzi and Magoun caused a cat to lapse into a coma by severing neural connections between the cortex and the:
A) reticular formation.
B) hypothalamus.
C) thalamus.
D) cerebellum.
E) medulla.

10. The minimum level of stimulation required to trigger a neural impulse is called the:
A) reflex.
B) threshold.
C) synapse.
D) action potential.

11. Which lobes of the brain receive the input that enables you to feel someone scratching your back?
A) parietal
B) temporal
C) occipital
D) frontal

12. The technique that uses magnetic fields and radio waves to produce computer images of structures within the brain is called:
A) the EEG.
B) a CT scan.
C) a PET scan.
D) MRI.

13. Transferring messages from a motor neuron to a leg muscle requires the neurotransmitter known as:
A) dopamine.
B) epinephrine.
C) acetylcholine.
D) insulin.

14. With regard to the process of neural transmission, a refractory period refers to a time interval in which:
A) chemical messengers traverse the synaptic gaps between neurons.
B) a brief electrical charge travels down an axon.
C) positively charged atoms are pumped back outside a neural membrane.
D) an individual reflexively withdraws from a pain stimulus.

15. Your conscious experience of self-identity depends primarily on the normal functioning of your:
A) cerebellum.
B) angular gyrus.
C) hypothalamus.

D) sympathetic nervous system.
E) cerebral cortex.

16. Voluntary movements, such as writing with a pencil, are directed by the:
A) sympathetic nervous system.
B) somatic nervous system.
C) parasympathetic nervous system.
D) autonomic nervous system.

17. The pain of heroin withdrawal may be attributable to the fact that:
A) under the influence of heroin the brain ceases production of endorphins.
B) under the influence of heroin the brain ceases production of all neurotransmitters.
C) during withdrawal the brain's production of all neurotransmitters is greatly increased.
D) heroin destroys endorphin receptors in the brain.

18. A drug that mimics the effect of dopamine is called a(n):
A) hormone.
B) steroid.
C) agonist.
D) opiate.

19. Which brain structure relays information from the eyes to the visual cortex?
A) thalamus
B) amygdala
C) medulla
D) hippocampus
E) cerebellum

20. The two major divisions of the nervous system are the central and the _____ nervous systems.
A) autonomic
B) sympathetic
C) parasympathetic
D) peripheral

21. The visual cortex is located in the:
A) occipital lobe.
B) temporal lobe.
C) frontal lobe.
D) parietal lobe.

22. The reuptake of a neurotransmitter such as serotonin would involve the reabsorption of serotonin into a(n):
A) axon terminal.
B) receiving neuron.
C) myelin sheath.
D) glial cell.

23. Following a gunshot wound to his head, Jack became more uninhibited, irritable, and profane. It is

likely that his personality change was the result of injury to his:
A) parietal lobe.
B) temporal lobe.
C) occipital lobe.
D) frontal lobe.
E) endocrine system.

24. The sensory cortex is most critical for our sense of:
A) taste.
B) sight.
C) hearing.
D) touch.
E) smell.

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

26. The brain structure that provides a major link between the nervous system and the hormone system is the:
A) cerebellum.
B) amygdala.
C) reticular formation.
D) hypothalamus.
E) medulla.

27. The neurotransmitter acetylcholine (ACh) is most likely to be found:
A) at the junction between sensory neurons and muscle fibers.
B) at the junction between motor neurons and muscle fibers.
C) at junctions between interneurons.
D) in all of the above locations.

28. EEG is to CT scan as:
A) amplified recording of brain waves is to x-ray photography.
B) x-ray photography is to amplified recording of brain waves.
C) radioactive emission is to amplified recording of brain waves.
D) amplified recording of brain waves is to radioactive emission.

29. How have Coren and Halpern explained the progressive decline in the percentage of left-handers among increasingly older population samples?
A) Left-handers die at younger ages than right-handers.
B) Left-handers gradually make increasing use of their right hands as they progress through adulthood.
C) Parents today are less likely to discourage left-handedness in children than were the parents of previous generations.
D) There has been a dramatic increase in the percentage of left-handed infants born in each successive decade of this century.

30. Based on research, which of the following seems true about the specialized functions of the right and left hemispheres?
A) They are more clear-cut in men than in women.
B) They are more clear-cut in women than in men.
C) Most complex tasks emerge from the activity of one or the other hemisphere.
D) Most complex activities emerge from the integrated activity of both hemispheres.

31. A biological psychologist would be most interested in the relationship between:
A) body chemistry and sexual behavior.
B) skull shape and character traits.
C) reason and emotion.
D) brain size and cell structure.

32. Dopamine injections have proven ineffective in the treatment of Parkinson's disease because dopamine:
A) fails to pass through the bloodstream into the brain.
B) suppresses the brain's natural capacity to produce endorphins.
C) blocks the capacity of neurons to absorb ACh.
D) produces uncontrollable muscle spasms.

33. The speed at which a neural impulse travels is increased when the axon is encased by a(n):
A) association area.
B) myelin sheath.
C) endocrine gland.
D) neural network.
E) synaptic vesicle.

34. Beginning at the front of the brain and working backward then down and around, which of the following is the correct order of the cortical regions?
A) occipital lobe; temporal lobe; parietal lobe; frontal lobe
B) temporal lobe; frontal lobe; parietal lobe; occipital lobe
C) frontal lobe; occipital lobe; temporal lobe; parietal lobe
D) frontal lobe; parietal lobe; occipital lobe; temporal lobe
E) occipital lobe; parietal lobe; temporal lobe; frontal lobe

35. PET scans have revealed that the visual cortex is activated when blind people read Braille. This best illustrates:
A) plasticity.
B) aphasia.
C) hemispherectomy.
D) phrenology.

36. Which of the following is typically controlled by the right hemisphere?
A) language
B) learned voluntary movements
C) arithmetic reasoning
D) perceptual tasks

37. The surgical removal of a large tumor from Allen's occipital lobe resulted in extensive loss of brain tissue. Allen is most likely to suffer some loss of:
A) muscular coordination.
B) language comprehension.
C) visual perception.
D) speaking ability.
E) pain sensations.

38. Chemical messengers produced by endocrine glands are called:
A) agonists.
B) neurotransmitters.
C) hormones.
D) enzymes.

39. After he suffered a stroke, Mr. Santos's physical coordination skills and responsiveness to sensory stimulation quickly returned to normal. Unfortunately, however, he began to experience unusual difficulty in solving simple problems and carrying out routine chores. It is most likely that Mr. Santos suffered damage to his:
A) cerebellum.
B) thalamus.
C) hypothalamus.
D) association areas.
E) autonomic nervous system.

40. Dr. Frankenstein made a mistake during neurosurgery on his monster. After the operation, the monster "saw" with his ears and "heard" with his eyes. It is likely that Dr. Frankenstein "rewired" neural connections in the monster's:
A) hypothalamus.
B) cerebellum.
C) amygdala.
D) thalamus.
E) hippocampus.

41. Since Malcolm has been taking a drug prescribed by his doctor, he no longer enjoys the little pleasures of life, such as eating and drinking. His doctor explains that this is because the drug:
A) triggers release of dopamine.
B) inhibits release of dopamine.
C) triggers release of ACh.
D) inhibits release of ACh.

42. Anton is applying for a technician's job with a neurosurgeon. In trying to impress his potential employer with his knowledge of the brain, he says, "After my father's stroke I knew immediately that the blood clot had affected his left cerebral hemisphere because he no longer recognized a picture of his friend." Should Anton be hired?
A) Yes. Anton obviously understands brain structure and function.
B) No. The right hemisphere, not the left, specializes in picture recognition.
C) Yes. Although blood clots never form in the left hemisphere, Anton should be rewarded for recognizing the left hemisphere's role in picture recognition.
D) No. Blood clots never form in the left hemisphere, and the right hemisphere is more involved than the left in recognizing pictures.

43. The motor cortex is located in the _____ lobes.
A) occipital
B) temporal
C) frontal
D) parietal

44. A scientist from another planet wishes to study the simplest brain mechanisms underlying emotion and memory. You recommend that the scientist study the:
A) brainstem of a frog.
B) limbic system of a dog.
C) cortex of a monkey.
D) cortex of a human.
E) brainstem of a dog.

45. Information is carried from the central nervous system to the tissues by:
A) interneurons.
B) sensory neurons.
C) motor neurons.
D) the limbic system.

46. Surgical destruction of brain tissue is called a(n):
A) split brain.
B) EEG.
C) synapse.
D) lesion.
E) MRI.

47. The part of the peripheral nervous system that controls glandular activity and the muscles of internal organs is called the:
A) somatic nervous system.
B) reticular formation.
C) limbic system.
D) autonomic nervous system.

48. Phrenology highlighted the potential importance of:
A) specific brain regions.
B) neurotransmitters.
C) hormones.
D) the right brain.

49. After Miguel's recent automobile accident, doctors detected damage to his frontal lobe in Broca's area. It is likely that Miguel will have difficulty:
A) remembering past events.
B) speaking fluently.
C) reading.
D) understanding other people when they speak.

50. A split-brain patient has a picture of a knife flashed to her left hemisphere and that of a fork to her

right hemisphere. She will be able to:
A) identify the fork using her left hand.
B) identify a knife using her left hand.
C) identify a knife using either hand.
D) identify a fork using either hand.

51. You come home one night to find a burglar in your house. Your heart starts racing and you begin to perspire. These physical reactions are triggered by the:
A) somatic nervous system.
B) sympathetic nervous system.
C) parasympathetic nervous system.
D) limbic system.

52. After Greg's serious motorcycle accident, doctors detected damage to his cerebellum. Greg is most likely to have difficulty:
A) experiencing intense emotions.
B) reading a book.
C) understanding what others are saying.
D) tasting the flavors of foods.
E) playing his guitar.

53. In transmitting sensory information to the brain, an electrical signal within a single neuron travels from the:
A) cell body to the axon to the dendrites.
B) dendrites to the axon to the cell body.
C) axon to the cell body to the dendrites.
D) dendrites to the cell body to the axon.
E) axon to the dendrites to the cell body.

54. Neurotransmitter is to ion as _____ is to _____.
A) agonist; antagonist
B) molecule; atom
C) hormone; epinephrine
D) GABA; ACh

55. A strong stimulus can increase the:
A) speed of the impulse the neuron fires.
B) intensity of the impulse the neuron fires.
C) number of times the neuron fires.
D) threshold that must be reached before the neuron fires.

56. Left-handedness is _____ than normal among people with reading disabilities and _____ than normal among artists.
A) lower; higher
B) lower; lower
C) higher; lower
D) higher; higher

57. Alzheimer's disease is most closely linked to the loss of neurons that produce:

A) dopamine.
B) acetylcholine.
C) epinephrine.
D) endorphins.

58. After a severe automobile accident, Louis lost his ability to read, even though he could see well, speak fluently, and understand whatever others said. It is likely that his cortex was damaged in:
A) the angular gyrus.
B) Wernicke's area.
C) the frontal lobe.
D) Broca's area.

59. Jason's painful withdrawal symptoms following heroin use were probably due in part to a reduction in his body's normal production of:
A) dopamine.
B) epinephrine.
C) acetylcholine.
D) endorphins.

60. The person most likely to suggest that the shape of a person's skull indicates the extent to which that individual is argumentative and aggressive would be a:
A) neurologist.
B) behavior geneticist.
C) psychoanalyst.
D) phrenologist.

61. Which is the correct sequence in the transmission of a neural impulse?
A) axon Æ dendrite Æ cell body Æ synapse
B) dendrite Æ axon Æ cell body Æ synapse
C) synapse Æ axon Æ dendrite Æ cell body
D) axon Æ synapse Æ cell body Æ dendrite
E) dendrite Æ cell body Æ axon Æ synapse

62. Sir Charles Sherrington observed that impulses took more time to travel a neural pathway than he might have anticipated. His observation provided evidence for the existence of:
A) association areas.
B) glial cells.
C) synaptic gaps.
D) interneurons.
E) neural networks.

63. After Paul's serious snow-skiing accident, doctors detected damage to his temporal lobe in Wernicke's area. Because of the damage, Paul is most likely to experience difficulty in:
A) remembering past events.
B) pronouncing words correctly.
C) understanding what others are saying.
D) recognizing familiar faces.

64. The part of the brainstem that controls heartbeat and breathing is called the:

A) cerebellum.
B) medulla.
C) reticular formation.
D) thalamus.

65. Damage to _____ will usually cause a person to lose the ability to comprehend language.
A) the angular gyrus
B) Broca's area
C) Wernicke's area
D) frontal lobe association areas

66. A brain tumor caused extensive damage to Mr. Thorndike's hypothalamus. It is most likely that he may suffer a loss of:
A) visual perception.
B) muscular coordination.
C) sexual motivation.
D) language comprehension.

67. Jessica experienced difficulty keeping her balance after receiving a blow to the back of her head. It is likely that she injured her:
A) medulla.
B) thalamus.
C) hypothalamus.
D) cerebellum.
E) cerebrum.

68. Epinephrine and norepinephrine are _____ that are released by the _____ gland.
A) neurotransmitters; pituitary
B) hormones; pituitary
C) neurotransmitters; adrenal
D) hormones; adrenal
E) hormones; thyroid

69. A neuron will generate action potentials more often when it:
A) remains below its threshold.
B) receives an excitatory input.
C) receives more excitatory than inhibitory inputs.
D) is stimulated by a neurotransmitter.
E) is stimulated by a hormone.

70. In a tragic diving accident, Andrew damaged his spinal cord and consequently suffered paralysis of his legs. Andrew's injury was located in his:
A) somatic nervous system.
B) limbic system.
C) sympathetic nervous system.
D) central nervous system.

71. A slap on the back is more painful than a pat on the back because a slap triggers:
A) faster neural impulses.

B) more intense neural impulses.
C) more frequent neural impulses.
D) all the above.

72. Which of the following are governed by the simplest neural pathways?
A) emotions
B) physiological drives, such as hunger
C) reflexes
D) movements, such as walking
E) balance

73. The somatic nervous system is a component of the _____ nervous system.
A) peripheral
B) autonomic
C) central
D) sympathetic
E) parasympathetic

74. Increasing the intensity of a stimulus above the threshold will not similarly increase the intensity of a neural response to that stimulus. This highlights the nature of the:
A) synaptic gap.
B) myelin sheath.
C) reward deficiency syndrome.
D) all-or-none response.
E) glial cells.

75. Reading a story involves brain activity in the _____ cerebral hemisphere(s). Producing a creative artistic drawing involves brain activity in the _____ cerebral hemisphere(s).
A) left; right
B) right; left
C) left; right and left
D) right and left; right
E) right and left; right and left

76. The sense of hearing is to the _____ lobes as the sense of touch is to the _____ lobes.
A) frontal; occipital
B) temporal; parietal
C) parietal; temporal
D) occipital; frontal

77. The ancient Greek physician Hippocrates believed that four basic body fluids (blood, black bile, yellow bile, and phlegm) influenced human behavior, emotions, and personality. Use your understanding of the body's rapid and slower chemical communication systems to support or refute Hippocrates's theory.

78. Neural regulation of a child's language functioning is transferred to the right hemisphere if speech areas in the left hemisphere are damaged. This best illustrates:
A) aphasia.
B) hemispherectomy.

C) plasticity.
D) tomography.
E) phrenology.

79. Neural impulses may travel as rapidly as:
A) sound waves.
B) light waves.
C) 200 miles per hour.
D) electricity through a wire.

80. Messages are transmitted from your spinal cord to your heart muscles by the:
A) limbic system.
B) somatic nervous system.
C) central nervous system.
D) autonomic nervous system.

81. Research has found that the amount of representation in the motor cortex reflects the:
A) size of the body parts.
B) degree of precise control required by each of the parts.
C) sensitivity of the body region.
D) area of the occipital lobe being stimulated by the environment.

82. According to Roger Sperry, a recognition that the mind cannot be fully explained by the activity of nerve cells is important for appreciating our human capacity for:
A) information processing.
B) neural plasticity.
C) moral responsibility.
D) computed tomography.

83. Botulin poisoning from improperly canned food causes paralysis by blocking the release of:
A) endorphins.
B) epinephrine.
C) acetylcholine.
D) curare.

84. Which of the following is typically controlled by the left hemisphere?
A) spatial reasoning
B) arithmetic reasoning
C) the left side of the body
D) perceptual skills

85. An action potential is generated by the movement of:
A) glial cells.
B) hormones.
C) neurotransmitters.
D) ions.

86. Dr. Johnson briefly flashed a picture of a key in the right visual field of a split-brain patient. The

patient could probably:
A) verbally report that a key was seen.
B) write the word key using the left hand.
C) draw a picture of a key using the left hand.
D) do none of the above.

87. You are able to pull your hand quickly away from hot water before pain is felt because:
A) movement of the hand is a reflex that involves intervention of the spinal cord only.
B) movement of the hand does not require intervention by the central nervous system.
C) the brain reacts quickly to prevent severe injury.
D) the autonomic division of the peripheral nervous system intervenes to speed contraction of the muscles of the hand.

88. The effect of a drug that is an agonist is to:
A) cause the brain to stop producing certain neurotransmitters.
B) mimic a particular neurotransmitter.
C) block a particular neurotransmitter.
D) disrupt a neuron's all-or-none firing pattern.

89. The body's natural production of endorphins is likely to be _____ by heroin use and _____ by acupuncture.
A) increased; increased
B) decreased; decreased
C) increased; decreased
D) decreased; increased

90. During an action potential, the electrical state of the axon becomes:
A) polarized, as positively charged atoms are admitted.
B) polarized, as negatively charged atoms are admitted.
C) depolarized, as positively charged atoms are admitted.
D) depolarized, as negatively charged atoms are admitted.

91. Which region of the brainstem arouses you to a state of alertness when someone nearby mentions your name?
A) reticular formation
B) cerebellum
C) hypothalamus
D) amygdala
E) medulla

92. Which brain structure receives information from all the senses except smell?
A) hippocampus
B) amygdala
C) angular gyrus
D) thalamus

93. Following Jayshree's near-fatal car accident, her physician noticed that the pupillary reflex of her eyes was abnormal. This MAY indicate that Jayshree's _____ was damaged in the accident.
A) occipital cortex

B) autonomic nervous system
C) left temporal lobe
D) cerebellum
E) brainstem

94. Olds and Milner located "pleasure centers" in the brain structure known as the:
A) sensory cortex.
B) hypothalamus.
C) cerebellum.
D) medulla.
E) amygdala.

95. People typically recognize _____ more rapidly and accurately when they are flashed to the left hemisphere; they typically recognize _____ more rapidly and accurately when they are flashed to the right hemisphere.
A) letters; numbers
B) words; numbers
C) numbers; letters
D) words; pictures

96. A brief electrical charge that travels down the axon of a neuron is called the:
A) synapse.
B) threshold.
C) action potential.
D) myelin sheath.
E) refractory period.

97. Raccoons have much more precise control of their paws than dogs. You would expect that raccoons have more cortical space dedicated to "paw control" in the _____ of their brains.
A) frontal lobes
B) parietal lobes
C) temporal lobes
D) occipital lobes

98. The ovaries in females and the testes in males are part of the:
A) limbic system.
B) endocrine system.
C) sympathetic nervous system.
D) reticular formation.
E) central nervous system.

99. The axons of certain neurons are covered by a layer of fatty tissue that helps speed neural transmission. This tissue is:
A) the glia.
B) the myelin sheath.
C) acetylcholine.
D) an endorphin.

100. The part of the human brain that is most like that of a fish is the:

A) cortex.
B) limbic system.
C) brainstem.
D) right hemisphere.
E) corpus callosum.

Answer Key - 01.01.24:AP Psychology 12:Chap 2.ef

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

48. A
49. B
50. A
51. B
52. E
53. D
54. B
55. C
56. D
57. B
58. A
59. D
60. D
61. E
62. C
63. C
64. B
65. C
66. C
67. D
68. D
69. C
70. D
71. C
72. C
73. A
74. D
75. E
76. B
77.
78. C
79. C
80. D
81. B
82. C
83. C
84. B
85. D
86. A
87. A
88. B
89. D
90. C
91. A
92. D
93. B
94. B
95. D
96. C
97. A
98. B
99. B
100. C