Memory Foundations and Applications 3rd edition Schwartz Test Bank

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Chapter 2: Memory and the Brain

Test Bank

Multiple Choice

1. The Olfactory Bulb is the primary organ for processing odors. Information from the olfactory nerves is carried directly to the:
a. cortex.
b. nose.
c. left brain.
d. right brain.
Ans: a
Cognitive Domain: Knowledge
Answer Location: Olfaction, Memory, and the Brain
Difficulty Level: Easy

2. Musical perception is processed primarily in which hemisphere of the brain?
a. left
b. right
c. center
d. hind
Ans: b
Cognitive Domain: Knowledge
Answer Location: Memory, Music and the Brain
Difficulty Level: Easy

3. Which of the following drugs is prescribed to treat Alzheimer's disease?
a. benzodiazepines
b. asprin
c. carbamazepines
d. cholinergics
Ans: d
Cognitive Domain: Knowledge
Answer Location: Chemical Enhancement of Memory
Difficulty Level: Easy

4. An inability to retrieve memories of events prior to brain damage is called:
a. amnesia.
b. retrograde amnesia.
c. structural amnesia.
d. function three amnesia.
Ans: b

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Cognitive Domain: Knowledge
Answer Location: Neuropsychology: Memory Deficits and Amnesia
Difficulty Level: Easy

5. An inability to form new memories follow brain damage is called:
a. anterograde amnesia.
b. retrograde amnesia.
c. function three amnesia.
d. sensorial amnesia.
Ans: a
Cognitive Domain: Knowledge
Answer Location: Neuropsychology: Memory Deficits and Amnesia
Difficulty Level: Easy

6. The frontal lobe is in this part of the brain.
a. shocking
b. stimulating
c. most anterior
d. biticular section
Ans: c
Cognitive Domain: Knowledge
Answer Location: Frontal Lobe
Difficulty Level: Easy

7. With what is the prefrontal cortex most associated?
a. learning
b. higher emotions
c. flight or fight decisions
d. fixations
Ans: b
Cognitive Domain: Knowledge
Answer Location: Frontal Lobe
Difficulty Level: Easy

8. The prefrontal cortex is part of which lobe?
a. frontal
b. left
c. right
d. center
Ans: a
Cognitive Domain: Knowledge
Answer Location: Frontal Lobe
Difficulty Level: Easy

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9. With what is the prefrontal lobe most associated?
a. hearing
b. hopes
c. sight
d. higher emotion
Ans: d
Cognitive Domain: Knowledge
Answer Location: Frontal Lobe
Difficulty Level: Easy

10. Somatosensory perception is a function of this lobe.
a. sense lobe
b. frontal
c. center
d. parietal
Ans: d
Cognitive Domain: Comprehension
Answer Location: Parietal Lobe
Difficulty Level: Medium

11. Attention is most associated with this lobe.
a. frontal
b center
c. left
d. parietal
Ans: d
Cognitive Domain: Comprehension
Answer Location: Parietal
Difficulty Level: Medium

12. Visual processing takes place in which lobe?
a. imaging lobe
b. parietal
c. left
d. occipital
Ans: d
Cognitive Domain: Comprehension
Answer Location: Occipital
Difficulty Level: Medium

13. Basic visual memory takes place in this lobe.
a. occipital

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b. right
c. left
d. parietal
Ans: a
Cognitive Domain: Knowledge
Answer Location: Occipital Lobe
Difficulty Level: Easy

14. The temporal lobe is associated with:
a. language, audition, and memory.
b. development, vision, and attention.
c. emotion, metacognition, and memory.
d. vision, language, and somatosensory attention.
Ans: a
Cognitive Domain: Knowledge
Answer Location: Temporal Lobe
Difficulty Level: Medium

15. The frontal lobe is associated with:
a. vision, smell, and taste.
b. higher emotion, decision-making, metacognition, and memory.
c. audition, language, and memory.
d. somatosensory and attention.
Ans: b
Cognitive Domain: Comprehension
Answer Location: Cortical Areas of the Brain Associated with Memory
Difficulty Level: Medium

16. Which area of the brain serves as a routing center?
a. amygdala
b. thalamus
c. hypothalamus
d. diencephalon
Ans: b
Cognitive Domain: Comprehension
Answer Location: Diencephalon
Difficulty Level: Medium

17. Which area of the brain is associated with emotions?
a. amygdala
b. hypothalamus
c. thalamus
d. diencephalon

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Ans: b
Cognitive Domain: Comprehension
Answer Location: Amgdala
Difficulty Level: Medium

18. Which part of the brain is critical in emotional learning, fear, and memory?
a. thalamus
b. hypothalamus
c. frontal lobe
d. amygdala
Ans: d
Cognitive Domain: Comprehension
Answer Location: Amygdala
Difficulty Level: Medium

19. The diencephalon part of the brain is includes the:
a. amygdala and thalamus.
b. thalamus and hypothalamus.
c. amygdala and hypothalamus.
d. thalamus and amygdala.
Ans: b
Cognitive Domain: Comprehension
Answer Location: Diencephalon
Difficulty Level: Medium

20. This area of the brain is associated with memory.
a. hind brain
b. left brain
c. right brain
d. cortical areas
Ans: d
Cognitive Domain: Knowledge
Answer Location: Cortical Areas of the Brain Associated with Memory
Difficulty Level: Easy

21. The Cerebral is also known as:
a. neocortex.
b. left lobe.
c. right lobe.
d. fixed cortex.
Ans: a
Cognitive Domain: Knowledge
Answer Location: Cortical Areas of the Brain Associated with Memory

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Difficulty Level: Easy

22. The frontal lobe, temporal lobe, parietal lobe, and the occipital lobe make up:
a. cerebral cortex.
b. diencephalon.
c. parietal.
d. prefrontal.
Ans: a
Cognitive Domain: Comprehension
Answer Location: Cortical Areas of the Brain Associated with Memory
Difficulty Level: Medium

23. These are a set of brain structures located just beneath the crebral cortex. They are important to memory and emotion.
a. medial temporal system
b. limbic system
c. episodic memory system
d. associated memory system
Ans: b
Cognitive Domain: Comprehension
Answer Location: Subcortical Structures
Difficulty Level: Medium

24. Damage to this area can cause anterograde amnesia.
a. campus
b. hippocampus
c. anterior campus
d. cerebral cortex
Ans: b
Cognitive Domain: Comprehension
Answer Location: Subcortial Structures
Difficulty Level: Medium

25. This part of the brain produces dopamine. With Parkinson's disease, this area does not produce enough.
a. Substantia nigra
b. hippocampus
c. free recall
d. Axon terminal
Ans: a
Cognitive Domain: Comprehension
Answer Location: Neurotransmitters
Difficulty Level: Medium

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26. Terminal Buttons at the end of an axon hold:
a. dendrites.
b. neurotransmitter.
c. synapses.
d. perceptors.
Ans: b
Cognitive Domain: Comprehension
Answer Location: Neurons
Difficulty Level: Medium

27. This is the gap between one neuron and the dendrite of the next.
a. cortex receptors
b. synapses
c. axon
d. engram receptor
Ans: b
Cognitive Domain: Comprehension
Answer Location: Neuron
Difficulty Level: Medium

28. This is the part of the neuron that sends information to other neurons.
a. synapse
b. terminal Button
c. dendrite
d. axon
Ans: d
Cognitive Domain: Comprehension
Answer Location: Neurons
Difficulty Level: Medium

29. The practice of helping brain-damaged patients recover and cope with injuries is called:
a. clinical neuropsychology.
b. psychiatry.
c. psychology.
d. injury parapsychology.
Ans: a
Cognitive Domain: Knowledge
Answer Location: Brain and Memory
Difficulty Level: Easy

30. This is the electrochemical process of transmission in an axon.

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a. action potential
b. neuron transmission
c. synapse process
d. cognitive flow
Ans: a
Cognitive Domain: Knowledge
Answer Location: Neurons
Difficulty Level: Easy

31. What part of the neuron receives information from other neurons or directly from sensory receptors?
a. dendrites
b. axon
c. synapse
d. nigra
Ans: a
Cognitive Domain: Knowledge
Answer Location: Neurons
Difficulty Level: Easy

32. Describe the functional significance of the hippocampus.
a. cognitive and emotional functioning
b. learning and memory
c. memory and emotion
d. fear and learning
Ans: b
Cognitive Domain: Application
Answer Location: Amygdala
Difficulty Level: Hard

33. When an individual suspects a diagnosis of Alzheimer's, one of many dimentia/type illnesses, what will be the first deficit detected in this disease?
a. cognition
b. emotion
c. memory
d. behavior
Ans: c
Cognitive Domain: Application
Answer Location: Brain and Memory
Difficulty Level: Hard

34. Which of these limbic system structures is most associated with emotion and emotional learning?

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a. hypothermus
b. hyperthalamus
c. thalamus
d. amygdala
Ans: d
Cognitive Domain: Knowledge
Answer Location: Amygdala
Difficulty Level: Easy

35. In a serious accident that results in brain damage, memory deficits acquired through brain damage will result in:
a. Alzheimer's.
b. amnesia.
c. concussion.
d. engram aversion.
Ans: b
Cognitive Domain: Comprehension
Answer Location: Subcortical Structures
Difficulty Level: Medium

36. This part of the brain is an important relay point in human memory circuits.
a. diencephalon
b. amygdala
c. hippocampus
d. hypercampus
Ans: a
Cognitive Domain: Comprehension
Answer Location: Diencephalon
Difficulty Level: Medium

37. An inability to form new memories following brain damage is known as:
a. anterograde amnesia.
b. amnesia.
c. Alzheimer's.
d. forgetful memory.
Ans: a
Cognitive Domain: Comprehension
Answer Location: Neuropsychology: Memory Deficits and Amnesia
Difficulty Level: Medium

38. tdCS directs what type of electricity directly to the scalp in a continuous fashion?
a. dBs
b. low current

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c. MRI
d. PED
Ans: b
Cognitive Domain: Application
Answer Location: Brain Stimulation Techniques
Difficulty Level: Hard

39. If a researcher wished to observe the change in cognition relating to brain stimulation, a technique the researcher might use would involve a small magnetic pulse to create a small pulse of electricity. Which stimulation technique would the researcher use?
a. tdCS
b. DBS
c. tDCS
d. TMs
Ans: d
Cognitive Domain: Application
Answer Location: Brain Stimulation Techniques
Difficulty Level: Hard

40. To view the Cerebral Cortex, the Corpus Callosum, and a number of subcortical structures, a researcher might us:
a. MRI.
b. tdCS.
c. dBs.
d. TMs.
Ans: a
Cognitive Domain: Comprehension
Answer Location: Brain Stimulation Techniques
Difficulty Level: Medium

41. A device implanted directly into the brain to send electrical impulses to specific regions of the brain is called a:
a. MRI.
b. TMs.
c. dBs.
d. DTI.
Ans: c
Cognitive Domain: Comprehension
Answer Location: Brain Stimulation Techniques
Difficulty Level: Medium

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42. To compare the pattern of movement of molecules within the tissue in order to derive structural images, a researcher would use a special type of MRI known as:
a. dBs.
b. DTI.
c. tdCS.
d. TMs.
Ans: b
Cognitive Domain: Comprehension
Answer Location: Magnetic Resonance Imaging Technology
Difficulty Level: Medium

43. What instrument would a researcher use to get a detailed image of a living human brain without causing any damage to living tissue?
a. PET
b. tdCS
c. TMs
d. MRI
Ans: a
Cognitive Domain: Comprehension
Answer Location: Positron Emission Tomography
Difficulty Level: Medium

44. What equipment has advanced our understanding of the relation of brain and mind more than any other tool?
a. TMs
b. MRI
c. PET
d. fMRI
Ans: d
Cognitive Domain: Comprehension
Answer Location: Magnetic Resonance Imaging Technology
Difficulty Level: Medium

45. The hypothetical physical unit of storage of a memory is known as:
a. memory.
b. engram.
c. neuron.
d. axon.
Ans: b
Cognitive Domain: knowledge
Answer Location: Old Questions, New Answers
Difficulty Level: Easy

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46. The Parietal Lobe, Occipital Lobe, Temporal Lobe, and Frontal Lobe are all known as what type of lobes?
a. Frontal Cortex
b. Prefrontal Cortex
c. Cortical
d. Temporal Cortex
Ans: c
Cognitive Domain: Comprehension
Answer Location: Cortical Areas of the Brain Associated with Memory
Difficulty Level: Medium

47. Self-regulation of memory is most associated with which lobe of the Cerebral Cortex?
a. occipital
b. parietal
c. frontal
d. temporal
Ans: c
Cognitive Domain: Knowledge
Answer Location: Frontal
Difficulty Level: Easy

48. In order for a neural signal to be sent, neurotransmitters must move from the axon of one neuron to the dendrite of another. This reflects the importance of the:
a. organelles.
b. synapse.
c. terminal buttons.
d. dendrites.
Ans: b
Cognitive Domain: Knowledge
Answer Location: Neurons
Difficulty Level: Easy

49. A set of techniques that allow researchers to make detailed maps of the brain and assign functions to particular regions of the brain is known as:
a. neuroimaging.
b. intracranial EEG.
c. electroencephalography.
d. magnetoencephalography.
Ans: a
Cognitive Domain: Knowledge
Answer Location: Methods in Cognitive Neuroscience
Difficulty Level: Easy

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50. When looking for a particular class of stimulus in the brain, a researcher would look for averaged patterns across many trials. To do this, what type of test would be needed?
a. CAT
b. PET
c. EEG
d. MRI
Ans: c
Cognitive Domain: Comprehension
Answer Location: Electroencephalography
Difficulty Level: Medium

51. What is the function of the prefrontal lobe as associated with the frontal lobe area?
a. forgetful mechanism
b. initiating emotion
c. initiating flight or flight
d. initiating memory
Ans: d
Cognitive Domain: Comprehension
Answer Location: Frontal Lobe
Difficulty Level: Medium

52. Where does initiating memory take place?
a. prefrontal cortex
b. temporal lobe
c. hippocampus
d. amagdala
Ans: a
Cognitive Domain: Knowledge
Answer Location: Frontal Lobe
Difficulty Level: Easy

53. Memory loss can occur at tremendous costs in this area due to its widespread consequences.
a. prefrontal Lobe
b. diencephalon
c. amagdala
d. hippocampus
Ans: b
Cognitive Domain: Knowledge
Answer Location: Diencephalon
Difficulty Level: Easy

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54. This area is concerned with massive connections between the Prefrontal Lobe, the hippocampus, and the medial temporal lobe.
a. diencephalon
b. amagdala
c. corpus collosum
d. skull cap
Ans: a
Cognitive Domain: Comprehension
Answer Location: Diencephalon
Difficulty Level: Medium

55. A student has stayed up all night working on a project in hopes of finishing it before class begins. Soon the student begins experiencing headaches and is unable to concentrate due to the lack of sleep. What part of the brain is being most affected due to over exposure to the task?
a. amygdala
b. hippocampus
c. Broca's area
d. lateral fissure
Ans: a
Cognitive Domain: Analysis
Answer Location: Amygdala
Difficulty Level: Hard

56. The area of the brain that is located just below the prefrontal cortex, above the lateral fissure, and beside the precentral gyrus is known as the:
a. Broca's area.
b. hippocampus area.
c. occipital Lobe area.
d. visual cortex.
Ans: a
Cognitive Domain: Analysis
Answer Location: Figure 2.6. The Cortical Lobes
Difficulty Level: Hard

57. The area located between the precentral gyrus and the postcentral gyrus is called the:
a. central sulcus.
b. Broca's area.
c. auditory cortex.
d. prefrontal cortex.
Ans: a

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Cognitive Domain: Analysis
Answer Location: Figure 2.6. The Cortical Lobes
Difficulty Level: Hard

58. The most anterior part of the cerebral cortex is called:
a. prefrontal cortex.
b. frontal lobe.
c. auditory cortex.
d. Wernicke area.
Ans: b
Cognitive Domain: Knowledge
Answer Location: Frontal Lobe
Difficulty Level: Easy

59. Amygalda means:
a. almond.
b. memory.
c. emotion.
d. to forget.
Ans: a
Cognitive Domain: Knowledge
Answer Location: Amygalda
Difficulty Level: Easy

60. The hippocampus is part of what network of the brain?
a. bilateral
b. cortical
c. limbic
d. knowledge
Ans: c
Cognitive Domain: Knowledge
Answer Location: Hippocampus
Difficulty Level: Easy

61. In Greek, what does hippocampus mean?
a. hippo
b. memory
c. fat cell
d. seahorse
Ans: d
Cognitive Domain: Knowledge
Answer Location: Hippocampus
Difficulty Level: Easy

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62. An elderly person has fallen. As a result, the individual has broken bones and a severe bump on the head. When examined, this individual seems to have anterograde amnesia (the ability to form new memories after a brain injury). What part of the brain has likely been damaged?
a. hippocampus
b. thalamus
c. frontal lobe
d. prefrontal lobe
Ans: a
Cognitive Domain: Analysis
Answer Location: Hippocampus
Difficulty Level: Hard

63. In regards to question 62, what additional part of the brain might be damaged as well?
a. medial temporal lobe
b. prefrontal cortex
c. frontal cortex
d. postcentral gyrus
Ans: a
Cognitive Domain: Analysis
Answer Location: Temporal Lobe
Difficulty Level: Hard

64. In which lobe is memory and imagery processed?
a. visual processing
b. free recognition processing
c. forced recognition processing
d. cortex recognition processing
Ans: a
Cognitive Domain: Knowledge
Answer Location: Occipital Lobe
Difficulty Level: Easy

65. When identification is required of a recognized memory target from a set of presented items, which part of the brain is being used?
a. frontal lobe
b. parietal lobe
c. amygdala
d. occipital lobe
Ans: d
Cognitive Domain: Comprehension

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Answer Location: Occipital Lobe
Difficulty Level: Medium

66. A hypothetical, yet physical unit of a stored memory is known as:
a. engram.
b. parietal unit.
c. unit of memory.
d. knowledge shed.
Ans: a
Cognitive Domain: Knowledge
Answer Location: Old Questions, New Answers
Difficulty Level: Easy

67. By what mechanism do drugs, such as caffeine, affect brain functions ?
a. neurons
b. dendrites
c. axon
d. synapse
Ans: a
Cognitive Domain: Comprehension
Answer Location: Neurons
Difficulty Level: Medium

68. Information from neurons to neurons is accomplished by:
a. axons.
b. synapses.
c. neurotransmitters.
d. dendrites.
Ans: c
Cognitive Domain: Comprehension
Answer Location: Neurotransmitters
Difficulty Level: Medium

69. In a possible severe drug overdose, considering the synapse, damage to dendrites and terminal buttons of a neuron would cause severe problems. What would this damage affect the transmission of ?
a. neurotransmitters
b. synapse transmitters
c. electrical centers
d. metacognition vibrations
Ans: a
Cognitive Domain: Analysis
Answer Location: Neurons

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Difficulty Level: Hard

70. Which of the following carry electrical impulses from one neuron to another?
a. neurotransmitters
b. axons
c. synapses
d. dendrites
Ans: a
Cognitive Domain: Knowledge
Answer Location: Neurons
Difficulty Level: Easy

71. An individual has been diagnosed with Alzheimer's disease. Which type of drug can be used in an attempt to alleviate memory loss in early stages of this disease?
a. cholinergics
b. benzodiazepines
c. low dose asperine
d. triliptal
Ans: a
Cognitive Domain: Comprehension
Answer Location: Chemical Enhancement of Memory
Difficulty Level: Medium

72. Which of the following can be used to induce amnesia in episodic memory?
a. benzodiazepines
b. cholinergics
c. slight taps
d. knowledge inducement
Ans: a
Cognitive Domain: Knowledge
Answer Location: Chemical Enhancement of Memory
Difficulty Level: Easy

73. In 1953, a man known only a HM underwent risky experimental surgery to alleviate symptoms of epilepsy. During surgery, parts of what were removed?
a. eyes
b. temporal lobes
c. hippocampus
d. hypothalmus
Ans: b
Cognitive Domain: Comprehension
Answer Location: Neuropsychology: Memory Deficits and Amnesia
Difficulty Level: Medium

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74. In anterograde amnesia, an inability to form and retain this occurs.
a. reaction time
b. cued recall
c. new memory
d. forced choice recognition
Ans: c
Cognitive Domain: Comprehension
Answer Location: Neuropsychology: Memory Deficits and Amnesia
Difficulty Level: Medium

75. Which of the following statements about neuroimaging is false?
a. Neuroimaging allows correlation of brain activity.
b. Neuroimaging addresses cognitive issues.
c. All neuroimaging technologies utilize magnets.
d. Neuroimaging addresses correlation of brain activity with memory.
Ans: c
Cognitive Domain: Comprehension
Answer Location: Methods in Cognitive Neuroscience
Difficulty Level: Medium

76. Which type of neuroimaging equipment can measure when the amygdala is active when evaluating emotional content?
a. magnetoencephalography
b. PET scan
c. EEG
d. intracranial EEG
Ans: a
Cognitive Domain: Comprehension
Answer Location: Magnetoencephalography
Difficulty Level: Medium

77. In the case of Phineas Gage, research has been directed at how brain damage affects cognition and behavior. His accident set the stage for:
a. cognitive and behavioral research.
b. brain imagery scanning.
c. neuropsychiatry.
d. neuropsychology.
Ans: d
Cognitive Domain: Comprehension
Answer Location: Neuropsychoogy: Memory Deficits and Amnesia
Difficulty Level: Medium

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78. The cognitive psychology of memory is increasingly influenced by the neuroscience of memory. Together, these form a hybrid field known as:
a. Behavioral Neuroscience.
b. Behavioral Psychology.
c. Cognitive Neuroscience.
d. Cognitive Psychology.
Ans: c
Cognitive Domain: Comprehension
Answer Location: Summary
Difficulty Level: Medium

79. The brain is composed of billions of:
a. dendrites.
b. electric paths.
c. lobes.
d. neurons.
Ans: d
Cognitive Domain: Knowledge
Answer Location: Neurons
Difficulty Level: Easy

80. Unlike language, music is processed primarily on which hemisphere of the brain?
a. left hemisphere
b. anterior hemisphere
c. right hemisphere
d. memory hemisphere
Ans: c
Cognitive Domain: Comprehension
Answer Location: Memory, Music, and the Brain
Difficulty Level: Medium

True/False

1. Deep brain stimulation does not require an implanted device.
Ans: F
Cognitive Domain: Comprehension
Answer Location: Brain Stimulation Techniques
Difficulty Level: Medium

2. It is suggested that music may be good at eliciting a strong connection between it and memory.
Ans: T

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Cognitive Domain: Knowledge
Answer Location: Memory, Music, and the Brain
Difficulty Level: Easy

3. The olfactory bulb is the primary organ in the brain for processing memory.
Ans: F
Cognitive Domain: Knowledge
Answer Location: Olifactory, Memory, and the Brain
Difficulty Level: Easy

4. Benzodiazepines are usually used because of their effects on anxiety, insomnia, and muscle relaxation.
Ans: T
Cognitive Domain: Knowledge
Answer Location: Chemical Enhancement of Memory
Difficulty Level: Easy

5. Retrograde amnesia is the inability to tolerate benzodiazepines during sleep-enhanced episodic memory.
Ans: F
Cognitive Domain: Comprehension
Answer Location: Neuropsychology: Memory Deficits and Amnesia
Difficulty Level: Medium

6. Diffusion tensor imaging (DTI) is another MRI technique.
Ans: T
Cognitive Domain: Comprehension
Answer Location: Magnetic Resonance Imaging Technologies
Difficulty Level: Medium

7. Positron Emission Tomography (PET) allows scientists to get a detailed image of a living human brain without damaging living tissue. It does involve injecting a small amount of radioactive substance into a person's blood, which does have potentially negative effects.
Ans: T
Cognitive Domain: Knowledge
Answer Location: Positron Emission Topography
Difficulty Level: Easy

8. Intracranial EEGs measure brain activity when electrodes are placed directly on the surface of the brain.
Ans: T
Cognitive Domain: Comprehension

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Answer Location: EEG (Electroencephalography)
Difficulty Level: Medium

9. Magnetoencephalography (MEG) uses an electrical sensor to detect small magnetic fields produced by electrical activity in the brain.
Ans: F
Cognitive Domain: Knowledge
Answer Location: Magnetoencephaloraphy (MEG)
Difficulty Level: Easy

10. The thalamus is an area of the brain heavily connected to other areas of the brain. It appears to serve as a routing center, however, this routing center must have connected relay points to human memory circuits. The routing centers are known as diencephalons.
Ans: T
Cognitive Domain: Comprehension
Answer Location: Diencephalon
Difficulty Level: Medium

11. The hypothalamus area of the brain is associated with basic emotions. To separate these emotions into emotional learning, fear, and memory, this information is transmitted by the amygdala.
Ans: T
Cognitive Domain: Comprehension
Answer Location: Amygdala
Difficulty Level: Medium

12. Engram is the hypothetical physical unit of storage of a memory.
Ans: T
Cognitive Domain: Knowledge
Answer Location: Old Questions, New Answers
Difficulty Level: Easy

13. To a behavioral neuroscientist the brain is a complex assortment of separate areas and regions, each of which has its own unique function.
Ans: F
Cognitive Domain: Comprehension
Answer Location: Memory and the Brain
Difficulty Level: Medium

14. The medial temporal lobe is associated with higher emotions, decision-making, metacognition, and memory. Damage to this area affects the fight or flight emotional response. This response can be associated with the prefrontal cortex.

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Ans: F
Cognitive Domain: Analysis
Answer Location: Frontal Lobe
Difficulty Level: Hard

15. Memory can be enhanced, however, to date, no drug has been shown to improve memory efficiency in normal adults. On the other hand, there is no doubt that some drugs prevent the formation of new memories. The only prescription drugs available to improve memory are chloinergics.
Ans: T
Cognitive Domain: Comprehension
Answer Location: Chemical Enhancement of Memory
Difficulty Level: Medium

Short Answer

1. Engram is the hypothetical physical unit of _____ of a memory.
Ans: storage
Cognitive Domain: Knowledge
Answer Location: Old Questions, New Answers
Difficulty Level: Easy

2. Sudden and devastating injuries to the brain are called _____ brain injuries.
Ans: traumatic
Cognitive Domain: Comprehension
Answer Location: Brain and Memory
Difficulty Level: Medium

3. The electrochemical process of transmission in an axon is known as action _____.
Ans: potential
Cognitive Domain: Knowledge
Answer Location: Neurons
Difficulty Level: Easy

4. The parts of the neuron that receive sensory receptors are called _____.
Ans: dendrites
Cognitive Domain: Knowledge
Answer Location: Neurons
Difficulty Level: Easy

5. Terminal buttons are the ends of axon that hold _____.
Ans: neurotransmitters

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Cognitive Domain: Knowledge
Answer Location: Neurons
Difficulty Level: Easy

6. A disease that causes the loss of myelin along axons, resulting in movement deficits is known as multiple sclerosis. Transmission of information in the axons, in contrast, is _____.
Ans: electrochemical
Cognitive Domain: Comprehension
Answer Location: Neurons
Difficulty Level: Medium

7. The brain is divisible into two _____ halves, oriented in the left-right direction.
Ans: symmetrical
Cognitive Domain: Knowledge
Answer Location: Structures of the Human Brain
Difficulty Level: Easy

8. Parts of the thalamus are crucial in the transmission of information from our sensory organs. However, with respect to memory there are massive connections which must occur. This occurrence is known as _____, which is involved in memory as well.
Ans: diencephalon
Cognitive Domain: Comprehension
Answer Location: Diencephalon
Difficulty Level: Medium

9. An individual was involved in a traumatic occurrence and was feeling dizzy with severe migraine headaches. The emergency room clinician decided to run _____ to observe changes in cognition and behavior.
Ans: TMS, tDCS, and DBS
Cognitive Domain: Analysis
Answer Location: Brain Stimulation Techniques
Difficulty Level: Hard

10. A clinician observes a patient requesting pain alleviation from Parkinson's disease. The patient is experiencing extreme motor disorders and major depression. The clinician suggests the _____ device that requires implantation for medical reasons.
Ans: DBS
Cognitive Domain: Analysis
Answer Location: Brain Stimulation Techniques
Difficulty Level: Hard

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Essay

1. Describe the flow of information through the neuron, including how information is transmitted through the axon, dendrite, and synapse.
Ans: neurotransmitters, electrical impulse, positive and negative charge, and nucleus.
Cognitive Domain: Comprehension
Answer Location: Neurons
Difficulty Level: Medium

2. Explain the four main anatomical areas of the cerebral cortex and the function of each.
Ans: Frontal, Temporal, Parietal, Occipital, vision, attention, language, memory, emotion, and decision-making.
Cognitive Domain: Analysis
Answer Location: Cortical Areas of the Brain Associated With Memory
Difficulty Level: Hard

3. List the six areas of the gross anatomy of the human brain.
Ans: Frontal, Lateral, Temporal, Occipital, Parietal, and Central Sulcus.
Cognitive Domain: Knowledge
Answer Location: Structures of the Human Brain
Difficulty Level: Easy

4. Explain the role of the neurotansmitters in neural circuits.
Ans: inhibit and excite.
Cognitive Domain: Comprehension
Answer Location: Neurotransmitters
Difficulty Level: Medium

5. Describe the use of Acetylchlorine by neurons.
Ans: innervate and muscle control.
Cognitive Domain: Comprehension
Answer Location: Neurotransmitters
Difficulty Level: Medium

6. Name the subcortical structures of the brain and describe the function of two of those areas.
Ans: Thalamus, Hippocampus, Amygdala, and Corpus Callosum.
Cognitive Domain: Comprehension
Answer Location: Subcortical Structures
Difficulty Level: Medium

7. Describe the cortical areas of the brain associated with memory.

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Ans: Parietal Lobe, Occipital Lobe, Frontal Lobe, and Temporal Lobe.
Cognitive Domain: Comprehension
Answer Location: Cortical Areas of the Brain Associated With Memory
Difficulty Level: Medium

8. What is mean by the term engram and what did Lashley hope to achieve by identifying it?
Ans: Hypothetical physical unit of memory storage.
Cognitive Domain: Comprehension
Answer Location: Old Questions, New Answers
Difficulty Level: Medium

9. Describe how benzodiazepines and cholinergics affect memory.
Ans: Memory, anxiety, insomnia, memory loss, and Alzheimer's.
Cognitive Domain: Comprehension
Answer Location: Chemical Enhancement of Memory
Difficulty Level: Medium

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