

**BIOLOGICAL PSYCHOLOGY I
ADDITIONAL PRACTICE FINAL EXAM**

Mark the ONE BEST letter choice (either A, B, C, D, or E) on the computer-graded sheet in NUMBER TWO PENCIL. If you need to erase, do so completely! You **MUST** use the answer sheet provided by us inside your exam packet. No other answer sheet will be allowed.

PLEASE NOTE!!! There are **THREE** forms of this exam. That means:

- (A.) Do **NOT** sit next to anyone with the same colored exam as you, or you will be asked to move. That will be disruptive, embarrassing, and a waste of your exam time.
- (B.) Be **SURE** to place your completed answer sheet in the appropriate collection box so it will be properly graded.
- (C.) Be **SURE** to "bubble-in" **and** write in your name and I.D. number (see top right side -- you have to turn the page 90 degrees).
- (D.) **BE SURE** to "bubble-in" whether or not you want your grade posted

GOOD LUCK!!! WE'RE ROOTIN' FOR YA!!

1. Neurophysiology is the study of the _____.
 - a. chemical bases of neural activity
 - b. functions and activities of the nervous system
 - c. effects of drugs on neural activity
 - d. structure of the nervous system
 - e. NONE of the above are correct

2. Which of the following is/are part of the central nervous system?
 - a. autonomic nervous system
 - b. the retina
 - c. somatic nervous system
 - d. BOTH a. and b. are correct
 - e. NONE of the above are correct

3. You are hammering a nail into a wall. You slip and smash your right thumb with the hammer. Owwwwwww!!!! With respect to your smashed right thumb, which kind of neuron directly synapsed onto motor neurons to create the spinal withdrawal reflex?
 - a. an ipsilateral interneuron
 - b. a pseudounipolar interneuron
 - c. a contralateral interneuron
 - d. a contralateral sensory neuron
 - e. an ipsilateral sensory neuron

4. Joe is a neuron. Joe's voltage-gated potassium channels just snapped open. What is the most likely event to happen next?
- Joe gets very embarrassed and hides
 - an IPSP occurs in one of Joe's dendrites
 - an action potential is created at Joe's axon hillock
 - Joe releases neurotransmitter into the synapse
 - potassium rushes from the inside of Joe to the outside
5. Neuron B receives an axo-dendritic synapse from Neuron A. Neurotransmitter released from Neuron A binds postsynaptic receptors on Neuron B, causing chloride channels to open. What is/are the most likely event(s) to happen next at this dendrite of Neuron B?
- Voltage gated sodium channels will open in this dendrite
 - Voltage gated potassium channels will open in this dendrite
 - an IPSP
 - an EPSP
 - TWO of the above are correct
6. Neuron Fred has autoreceptors on his presynaptic terminals. When these receptors are bound by neurotransmitter, this _____
- regulates the size of action potentials arriving at Fred's presynaptic terminal
 - opens calcium channels
 - increases release of Fred's neurotransmitter
 - serves to suppress further release of neurotransmitter
 - NONE of the above are correct
7. Neuron A receives an axo-axonic synapse from Neuron C. When Neuron C releases neurotransmitter into this axo-axonic synapse, the action potential arriving at Neuron A's presynaptic terminal gets taller (that is, a larger total voltage change than normal). What effect does this have on Neuron A?
- Neuron A is recruited by the CU basketball team
 - fewer calcium ions enter Neuron A's presynaptic terminal, causing less neurotransmitter to be released
 - more calcium ions enter Neuron A's presynaptic terminal, causing more neurotransmitter to be released
 - presynaptic inhibition
 - TWO of the above are correct
8. At resting cell membrane potential:
- sodium ions are low in concentration outside the cell
 - potassium ions are high in concentration outside the cell
 - sodium ions want to leave the cell based on diffusion pressure
 - potassium ions want to enter the cell based on electrostatic pressure
 - TWO of the above are correct

9. At resting cell membrane potential:

- a. sodium ions want to enter the cell based on diffusion pressure
- b. chloride ions want to enter the cell based on diffusion pressure
- c. potassium ions want to leave the cell based on diffusion pressure
- d. Both a. and b. are correct
- e. ALL of the above are correct

10. Neuron Fred synapses onto Neuron Joe. Neuron Fred releases neurotransmitter into this axo-dendritic synapse, causing IPSPs in Neuron Joe. What happens to Joe to cause these IPSPs?

- a. Joe gets insulted and punches Fred in the hillock!
- b. action potentials are generated in Joe's dendrite
- c. action potentials are generated at Joe's axon hillock
- d. voltage-gated potassium or chloride channels open
- e. neurotransmitter-gated potassium or chloride channels open

11. Neuron Joe is a multipolar neuron. EPSPs are now happening in Joe's dendrites. What happens right when Joe's dendrites depolarize to -65mV ?

- a. voltage-gated sodium channels snap open in his dendrites
- b. voltage-gated potassium channels snap open in his dendrites
- c. voltage-gated chloride channels snap open in his dendrites
- d. voltage-gated calcium channels snap open in his dendrites
- e. NONE of the above are correct

12. During an action potential:

- a. the rising phase is created by chloride leaving the cell
- b. the repolarization phase is created by chloride entering the cell
- c. the hyperpolarization phase is created by chloride entering the cell
- d. potassium channels snap close at the peak of the action potential
- e. the rising phase is created by sodium entering the cell

13. As you approach your apartment you hear the phone ringing and ringing. As you run to catch the call you notice the sound keeps getting louder as you get closer & closer to the phone. How does your brain know the sound is getting louder? As the sound gets louder action potentials in the neurons that carry the message of loudness _____ : _____ :

- a. occur more frequently
- b. get taller
- c. get wider
- d. show greater after-hyperpolarizations
- e. scream, so to be heard above the noise

14. Neuron Fred's axon uses saltatory conduction. For saltatory conduction, what causes the action potential to move down the axon?

- a. movement of intracellular sodium to the next node of Ranvier
- b. the sodium-potassium pump
- c. closure of the sodium channels in the axon hillock automatically opens nearby sodium channels
- d. opening of the calcium channels in the axon hillock automatically opens nearby sodium channels
- e. magic!

15. Serotonin:

- a. needs to be replaced in myasthenia gravis patients to relieve their symptoms
- b. is a type of indolamine
- c. is a type of amino acid
- d. is released by Black Widow venom
- e. is a neurotransmitter released by substantia nigra neurons

16. MAO:

- a. degrades some neurotransmitters, including dopamine & norepinephrine
- b. is a synthesis enzyme for dopamine
- c. stands for medial amygdaloccipital tract
- d. is a hereditary disease causing neural degeneration
- e. when pronounced repeatedly out loud is the cry of a hungry kittycat

17. Cocaine:

- a. blocks the reuptake of both norepinephrine and serotonin
- b. stimulates enzymes that break down norepinephrine
- c. acts as an antagonist at dopamine synapses
- d. acts as an antagonist at acetylcholine synapses
- e. functions as an agonist at norepinephrine synapses

18. Barbiturates:

- a. act as a GABA antagonist
- b. exert their sedative effects by facilitating the opening of chloride channels by GABA
- c. cause seizures by closing chloride channels
- d. include drugs like Librium and Valium
- e. TWO of the above are correct

19. LSD binds:

- a. dopamine autoreceptors
- b. serotonin autoreceptors
- c. dopamine postsynaptic receptors
- d. serotonin postsynaptic receptors
- e. NONE of the above are correct

20. You are a doctor and you are treating a Schizophrenic patient with haloperidol. What happens if you give too much drug? They ____.

- a. experience lockjaw
- b. exhibit signs of myasthenia gravis
- c. stop breathing
- d. show no side-effects, since haloperidol is an exceptionally safe drug
- e. exhibit signs of Parkinson's disease

21. What do L-DOPA, cocaine, and physostigmine all have in common? They _____.

- a. are antagonists
- b. are agonists
- c. modulate the effects of GABA
- d. suppress the excitability of neurons
- e. modulate the effects of Glycine

22. Which of the following would NOT result in antagonist actions:

- a. inactivation of presynaptic synthesis enzyme
- b. stimulation of neurotransmitter reuptake from the synaptic cleft
- c. supplying the precursor of the neurotransmitters
- d. making neurotransmitter vesicles leaky
- e. blocking neurotransmitter release into the synaptic cleft

23. Your grocery store is running a giant, blow-out sale of canned goods. However, when you pick up some of the cans, they've been dented along the seam of the can, breaking the sterile seal. These dented cans worry you. Why?

- a. because they won't stack well on your pantry shelf since they are dented
- b. improperly canned food can cause excessive serotonin release
- c. botulinum toxin is a glycine antagonist
- d. bacteria in improperly canned food can cause blindness
- e. botulinum toxin blocks acetylcholine release

24. What do picrotoxin and benzodiazepines have in common? They both _____.
- cause hallucinations
 - make neurotransmitter vesicles leaky
 - block re-uptake from the synaptic cleft
 - cause synaptic release of transmitter
 - modulate the actions of GABA
25. The _____ controls penile erection in males and clitoris swelling in females:
- parasympathetic nervous system
 - glycine
 - glutamate
 - sympathetic nervous system
 - somatic nervous system
26. Picture a cat standing quietly. The cat's ears are _____ and _____ to the cat's hind paws.
- dorsal; rostral
 - dorsal; caudal
 - inferior; anterior
 - superior; posterior
 - ventral; rostral
27. Picture a cat standing quietly. The cat's left hindleg is _____ and _____ to the cat's left shoulder.
- posterior; ipsilateral
 - rostral; ipsilateral
 - contralateral; caudal
 - rostral; contralateral
 - superior; bilateral
28. Your puppy dog is lying quietly under the coffee table with his hind leg sticking out. You don't notice him and you accidentally step on his hind leg. He yelps! Oh, poor puppy!!! What part of the puppy's spinal cord received that sensory information?
- lumbar
 - cervical
 - thoracic
 - intermediolateral
 - NONE of the above are correct

29. Corpus collosum _____.
- contains axons that interconnect the left and right halves of the brain
 - contains axons that interconnect the left & right halves of the spinal cord
 - connects the cerebellum to the pons
 - is a nucleus regulating respiration (breathing)
 - is a legal term meaning "lawyers are very thick skinned"
30. You touch a soft, sensuous silk robe. Isn't it lovely!? What part of your cerebral cortex first receives this delightful touch information?
- parietal
 - occipital
 - frontal
 - occidental
 - fractal
31. The _____ receives visual & auditory information. This brain structure is contained within the _____.
- hypothalamus; forebrain
 - medulla; diencephalon
 - tectum; midbrain
 - hypothalamus; telencephalon
 - tegmentum; midbrain
32. The thalamus is _____.
- in the diencephalon
 - important for motor control and balance
 - receives many types of sensory information
 - BOTH a and b are correct
 - BOTH a and c are correct
33. Larry the Lobster was happily sitting on his undersea rock when he was suddenly grabbed by a scuba diver. The scuba diver tilted Larry onto his (Larry's) right side. How does Larry's Lobster brain know he has been angled onto his right side?
- a "TILT!!" sign lights up and bells ring
 - his statocyst rolls inside his statolith, bending hair cells
 - hair cells on the left side of his statocysts become excited
 - hair cells on the right side of his statocysts become excited
 - hair cells in his otoconia become excited

34. Which of the following structures are involved in signaling circular acceleration?
- otoconia
 - statoliths
 - sacculle
 - cupula
 - spiral ganglion
35. You know that you always get seasick when you ride on a boat. Therefore, you take an anti-nausea drug like dramamine or scopolamine before boarding. How do those drugs work? They:
- thin out the endolymph, making it harder to stimulate hair cells
 - stiffen the cupula, making it more resistant to bending
 - inhibit the vestibular ganglion cells
 - inhibit the neurons in the vestibular nucleus
 - inhibit hair cells
36. Your grandmother wears a hearing aid. How does this gadget work? It:
- directly excites the spiral ganglion neurons
 - sends signals through the skull bone around the ear
 - corrects for nerve deafness
 - whispers sweet nothings to her
 - directly excites the auditory nucleus
37. Place coding refers to:
- your "mental map" of the world
 - how your brain tells which way is "up" versus "down"
 - how very high pitched sounds are encoded in the cochlea
 - how very low pitched sounds are encoded in the cochlea
 - the way information from your retina is "mapped" in your primary visual cortex
38. The anatomical term for your eardrum is:
- tympanic membrane
 - basilar membrane
 - tectorial membrane
 - pinnal membrane
 - snaredrum membrane

39. You are listening to a pianist strike a very low note on the piano. How is this low note signaled to the central nervous system?
- all of the hair cells in your cochlea fire action potentials at the same frequency as the sound
 - the hair cells at just one particular spot along the cochlea fire action potentials
 - all of the hair cells in your cochlea except for one particular spot fire action potentials; the absence of firing from this one spot encodes the sound
 - the otoconia vibrate at the same frequency as the sound
 - your tectorial membrane vibrates at the same frequency as the sound
40. Where is your primary auditory cortex located?
- pyriform cortex
 - temporal cortex
 - occipital cortex
 - frontal cortex
 - in a jazz club in New Orleans
41. The spiral ganglion:
- encodes circular accelerations as you spiral around in circles
 - contains neurons whose axons form the vestibular nerve
 - sends axons to the auditory nucleus
 - carries information about gravity and inertia
 - TWO of the above are correct
42. You have a brain tumor that puts pressure on the axons in your optic chiasm, killing these axons. Oh, dear! What happens to your vision? You LOSE visual information from your left eye's _____ hemiretina and your right eye's _____ hemiretina.
- nasal; nasal
 - nasal; temporal
 - temporal; temporal
 - temporal; nasal
 - The answer cannot be predicted from the information given.
43. The right primary visual cortex receives visual information from:
- right visual field
 - left visual field
 - the nasal hemiretinas of both the left and right eye
 - the temporal hemiretinas of both the left and right eye
 - the entire retina of the right eye

44. You have diabetes, which causes sugar to be deposited in the lens of both eyes. This discolors your lens, making it very difficult to see due to the loss of transparency. This disorder is called:
- cataracts
 - astigmatism
 - glaucoma
 - lenticular detachment
 - diabetic opacity
45. Aqueous humor:
- are jokes told by sailors
 - provides nourishment and oxygen to the retina
 - is present in excess in glaucoma
 - fills the space between the lens and the retina
 - fills the semicircular canals
46. In the light, photoreceptors:
- depolarize bipolar cells
 - remain at resting cell membrane potential
 - are depolarized
 - are hyperpolarized
 - TWO of the above are correct
47. Trichromatic color theory is correct at the level of the:
- photoreceptors
 - bipolar cells
 - ganglion cells
 - BOTH a and b are correct
 - ALL of the above are correct
48. In class we discussed Red(+)/Green(-) circuits for color vision. Which of the following is/are TRUE about how this circuit operates?
- green light depolarizes the red cone, inhibiting the bipolar it synapses with
 - red light depolarizes the red cone, inhibiting the bipolar it synapses with
 - green light hyperpolarizes the green cone, exciting the horizontal cell it synapses with
 - green light leads to inhibition of both the bipolar and ganglion cells
 - TWO of the above are TRUE

49. In class we discussed ON center OFF surround circuits for pattern vision. Which of the following is/are TRUE about how this circuit operates?
- diffuse light falling on both the center and surround intensely excites the ganglion cell
 - light striking only the ON center leads to inhibition of the ganglion cell
 - light striking only the OFF surround leads to excitation of horizontal cells
 - light striking only the OFF surround leads to excitation of the bipolar cell
 - TWO of the above are TRUE
50. You are at a party, intently engaged in a lively discussion with a friend. Although you are not consciously aware of conversations around you, the mention of your name by someone else somewhere in the room suddenly catches your full attention. What's this called?
- easesdropping
 - cocktail party phenomenon
 - completion phenomenon
 - directional attention
 - stereochastic phenomenon
51. Scotopic vision refers to:
- rod-mediated vision
 - creation of photographic memories
 - the blurring of rapidly moving objects
 - the electrical changes created by photons striking receptor cells
 - NONE of the above are correct
52. The fovea:
- is the anatomical name for the blindspot
 - primarily mediates night vision due to its high degree of sensitivity
 - contains both rods and cones
 - provides very precise vision due to little-to-no convergence of signals
 - TWO of the above are correct
53. Which of the following structure(s) is/are part of the visual pathway?
- striate cortex
 - medial geniculate nucleus
 - ventral posterior nucleus
 - temporal cortex
 - TWO of the above are correct

54. Damage to which of the following structures would cause you to lose vision from your left visual field?
- left lateral geniculate nucleus
 - left medial geniculate nucleus
 - left primary visual cortex
 - right medial geniculate nucleus
 - right lateral geniculate nucleus
55. Light enters your eye. After the light passes through your cornea, what is the very next structure the light encounters?
- ganglion cells
 - aqueous humor
 - vitreous humor
 - iris
 - sclera
56. Bipolar cells:
- are constantly depolarized in the dark
 - are excited by neurotransmitters released from horizontal cells
 - are excited by neurotransmitters released from photoreceptors
 - excite ganglion cells when they (the bipolar cells) depolarize
 - NONE of the above are correct
57. You are far-sighted. This means that:
- you can see into the future and predict next week's lottery numbers
 - your eyeball is too long
 - your eyeball is too short
 - your blindspot is too large
 - you can see only close-up objects clearly
58. Janet cannot recognize her mother's face, despite the fact that she (Janet) can correctly name the nose, lips, and eyes on her mother's face. Obviously she can see the face even though she cannot recognize whose it is. What's this called?
- scotoma
 - blindsight
 - prosopagnosia
 - parentalagnosia
 - presbyopia

59. The top tips of the hair cells in the cochlea are attached to the:
- cupula
 - gelatinous mass
 - tympanic membrane
 - basilar membrane
 - tectorial membrane
60. Bob cannot visually recognize a dinner fork, yet when he feels it he can easily identify what it is by name. What's this called?
- tactile ageusia
 - visual ageusia
 - stereognosia
 - visual agnosia
 - blindsight
61. When we discussed the somatosensory cortex, I showed you that it has a "map" of the body called the sensory homunculus. The auditory cortex has a "map" of all the sound frequencies you can hear. What is this organization called?
- spirotopic
 - basilotopic
 - tonotopic
 - auditotopic
 - stereotopic
62. Olfactory (smell) receptor cells in the nose send their axons directly to the:
- pyriform cortex
 - olfactory bulbs
 - olfactory cortex
 - thalamus
 - medial geniculate nucleus
63. The mechanism for enhancing your ability to detect edges is called:
- lateral suppression
 - lateral inhibition
 - center-surround organization
 - medial-lateral hierarchy
 - opponent process theory

64. A motor unit is composed of:
- an alpha motor neuron and its axon
 - a gamma motor neuron and its axon
 - an alpha motor neuron, its axon, and all of the muscle cells it innervates
 - a gamma motor neuron, its axon, and all of the muscle cells it innervates
 - all motor neurons that innervate the same muscle
65. Charlie the cat is being held up in the air, upside down (i.e., paws and belly side up) by a mean nasty kid. Giggling, the kid drops Charlie. Wow, Charlie lands on his feet! Way to go, Charlie! How'd Charlie do that?
- cats are just way too proud to let a little kid embarrass them like that!
 - vestibular righting reflex
 - vestibulocerebellar righting reflex
 - vestibular phasic postural reflex
 - ventromedial cortico-brainstem-spinal tract
66. Rigor mortis is caused by:
- too much starch in the laundry
 - acetylcholine released from dying motor neurons onto motor endplates
 - calcium released from packets inside of muscle cells
 - natural stiffening of muscle cell membranes after death
 - stiffening of skeletal joints, having nothing to do with the muscles themselves
67. You lift your sandwich to your mouth by contracting your bicep. Which of the following occurs during this contraction?
- In the presence of calcium, active sites are revealed on myosin
 - Calcium rushes into the muscle cells from the extracellular fluid
 - Intrafusal muscle fibers contract, which move your fingers due to their direct attachment to bones
 - Gamma-motor neurons synapse onto the muscles that move your fingers
 - NONE of the above are correct
68. You put your sandwich back down by contracting your tricep. Which of the following occur(s) during this contraction?
- Calcium rushes out of the muscle cells into the extracellular fluid
 - Extrafusal muscle fibers contract, causing arm movement
 - Active sites are blocked to prevent interaction with cross-bridges
 - BOTH a and b are correct
 - BOTH b and c are correct

69. Muscle spindles are very sensitive to:
- extrafusal muscle stretch if their intrafusal muscle fibers are relaxed
 - extrafusal muscle stretch if their intrafusal muscle fibers are contracted
 - intrafusal muscle stretch if their extrafusal muscle fibers are relaxed
 - intrafusal muscle stretch if their extrafusal muscle fibers are contracted
 - stretch all of the time since this is of survival value
70. You are holding a big bucket under the faucet and are filling it with water. Despite the increasing weight of the bucket, your arm never appears to move. Wow, how'd you do that?
- pure talent!
 - activation of the primary motor cortex, sending signals to the contralateral ventral horn
 - polysynaptic Golgi tendon organ reflex
 - monosynaptic stretch reflex
 - ventromedial cortico-brainstem-spinal tract
71. Sudden, violent, uncontrollable movements that are not under voluntary control are characteristic of:
- hemiballismus
 - Huntington's chorea
 - Korsakoff's syndrome
 - tumors of the cerebellum
 - Monday mornings
72. You are hunting the wily housefly. Armed with a flyswatter, you stalk your prey. There he is! On the countertop! You use a brief, all-or-none, high-speed movement that does not require sensory feedback to SWAT!!!! What's this called?
- patellar phasic reflex
 - monosynaptic death reflex
 - somatotopic motor pattern
 - ballistic movement
 - very satisfying!
73. You want to reach a glass off of the top shelf. To do this, your body must first be positioned in front of the shelf and your arm raised to get your hand close to the target. Only then can you grab the glass. What brain area does all the preparative positioning of the body prior to the actual grabbing of the glass?
- basal ganglia
 - cerebellum
 - posterior parietal association cortex
 - secondary motor cortex
 - ventromedial cortico-brainstem-spinal tract

74. Fred is a motor neuron. He sends his axon out to 2 muscle cells in your finger. What does activation of Fred most likely do if only Fred is activated?
- delicate, precise movement
 - crude, gross movement
 - big, strong movement
 - Nothing; contacting only 2 muscle cells can never result in movement
 - NONE of the above
75. Frank is in Stage 4 sleep. What will Frank most likely experience during Stage 4 sleep?
- penile erection
 - delta waves
 - theta waves
 - K complexes
 - alpha waves
76. You had a busy day. As you relax and become drowsy, your EEG pattern changes into:
- beta waves
 - alpha waves
 - 8 - 12 Hz waves
 - Both a and c are correct
 - Both b and c are correct
77. Andrea is in slow-wave sleep. Which of the following will she likely NOT experience?
- synchronized EEG
 - slow or absent eye movement
 - PGO waves
 - passive, less-detailed dreams
 - normal muscle tone
78. _____ may be related to infant sleeping position. Having babies sleep on their backs (rather than their tummies) is recommended to avoid this problem.
- Sudden infant death syndrome
 - Sleep apnea
 - Insomnia
 - Sleep terrors
 - NONE of the above are correct

79. Cataplexy:
- a. is a sudden attack of muscle weakness
 - b. is characterized by vivid, fearful sensory images at the onset of sleep
 - c. occurs as a major symptom of somnambulism
 - d. both a and c are correct
 - e. both b and c are correct
80. A shift in the sleep-wake cycle, as occurs from jet lag or during shift work:
- a. produce disturbances in the duration and patterning of sleep
 - b. produce reports of fatigue
 - c. disrupts performance on physical and cognitive function tests
 - d. ALL of the above are correct
 - e. NONE of the above are correct
81. Sleepwalking:
- a. almost always occurs in males, rather than females
 - b. typically begins at puberty
 - c. has no evidence of running in families
 - d. almost always occurs during REM sleep
 - e. NONE of the above are correct
82. Which of the following is/are FALSE about the following treatments for enuresis (bed-wetting)?
- a. Psychotherapy is highly effective
 - b. Enuresis alarms have been used successfully to condition the child to go to the bathroom during the night
 - c. Restricting diuretics (drugs that increase urine production) such as caffeinated beverages is helpful
 - d. Bladder training works for some children
 - e. ALL of the above are correct
83. The cerveau isole preparation:
- a. produces continuous sleep due to removal of sensory input to the cerebral cortex
 - b. produces continuous wakefulness
 - c. removes ascending reticular activation system input to the cerebral cortex
 - d. involves a pontine cut
 - e. TWO of the above are correct

84. Which neurotransmitter maintains slow wave sleep by actively inhibiting both wakefulness and REM?
- acetylcholine
 - norepinephrine
 - glycine
 - dopamine
 - serotonin
85. Simple forms of learning that do not require formation of associations include:
- operant conditioning
 - phobias
 - conditioned taste aversions
 - sensitization
 - NONE of the above are correct
86. Pavlov's dogs ruined Pavlov's experiment. They were supposed to salivate only after the meat was placed in their mouth. Instead, they began salivating when they heard Pavlov's footsteps down the hallway. What are Pavlov's footsteps called?
- a dead giveaway that dinner's coming!
 - conditioned response
 - unconditioned response
 - conditioned stimulus
 - unconditioned stimulus
87. Which of the following memory processes is/are characterized as high capacity and high duration?
- short term memory
 - long term memory
 - consolidation
 - sensory register
 - TWO of the above are correct
88. _____ memory is accessible to conscious awareness and includes episodic memories and semantic memories
- Declarative
 - Explicit
 - Implicit
 - BOTH a and b are correct
 - BOTH a and c are correct

89. Yesterday you moved into your new "fixer-upper" home. It needs some repairs, so today you are working on your roof. Oh, no! You slipped! You're falling! Next thing you know, you awaken in the hospital and have no memory of moving into your new home. What's this called?
- anterograde amnesia
 - a trick to avoid making mortgage payments
 - retroactive amnesia
 - retrograde amnesia
 - orthograde amnesia
90. Which of the following is FALSE about the importance of H.M.'s case? It:
- demonstrated that implicit memories and explicit memories have different anatomical locations in the brain
 - supports distinct short-term and long-term memory processes
 - supports the view of diffuse memory processes
 - implicates the medial temporal lobe in memory processes
 - suggests that the area removed from H.M.'s brain is important for consolidation
91. Thiamine (vitamin B1):
- is needed for the brain to derive energy from glucose
 - is found in high concentrations in neurofibrils and amyloid plaques
 - causes progressive loss of memory when taken in large quantities
 - is a remedy for closed head injury amnesias
 - NONE of the above are correct
92. Which of the following is/are characterized by degeneration of the nucleus basalis of Maynert?
- Korsakoff's syndrome
 - Alzheimer's disease
 - loss of norepinephrine input to the frontal and temporal cortex and hippocampus
 - loss of only implicit memory
 - TWO of the above are correct
93. _____ are memories for isolated events that occurred during periods for which a person is otherwise totally amnesic.
- Islands of memory
 - Engrams
 - Nootropics
 - Equipotential memories
 - Proactive memories

94. The _____ plays a specific role in memory for the emotional significance of experiences. Rats with lesions of this brain structure unlike normal rats, do not respond with fear to a light or sound that has been repeatedly followed by painful electric shock.
- amygdala
 - basal forebrain
 - hippocampus
 - rhinal cortex
 - mediodorsal thalamus
95. The neurotransmitter that binds to NMDA receptors is:
- glutamate
 - nitric oxide
 - GABA
 - glycine
 - acetylcholine
96. _____ syndrome refers to behaviors seen in monkeys with anterior temporal lobe lesions. These behaviors include consumption of almost anything that is edible, increased sexual activity often directed at inappropriate objects and a lack of fear.
- Kliver-Bucy
 - Canon-Bard
 - Duchenne
 - James-Lange
 - Prosody
97. According to the _____ theory, emotional stimuli have two independent excitatory effects. They excite both the feeling of emotion in the brain and the expression of emotion in the autonomic and somatic nervous systems. It views emotional experience and emotional expression as parallel processes that have no direct causal relationship.
- Kliver-Bucy
 - Canon-Bard
 - Duchenne
 - James-Lange
 - Prosody
98. In the movie, "The Violent Mind" that you saw in class, Sandy Craddick is a British woman who performed violent acts for 15 years. These violent acts included such adventures as throwing bottles through the Police Station window and stabbing a girl 17 times. What was her legal defense?
- her brain was not responding normally to progesterone
 - chemicals she worked with on the job caused her violence
 - epileptic seizures in the amygdala

- d. epileptic seizures in the hippocampus
- e. glucose imbalance due to diabetes

99. Inter-female aggression is primarily regulated by:

- a. testosterone
- b. progesterone
- c. estrogen
- d. PMS (pre-menstrual syndrome)
- e. competition for a date with the same cool guy!

100. Injection of testosterone into the medial _____ reinstates aggressive behaviors in castrated male rats.

- a. geniculate
- b. preoptic area
- c. frontal cortex
- d. temporal lobe
- e. amygdala

Answer key:

1. b 2. b 3. a 4. e 5. c 6. d 7. c 8. d 9. e 10. e
11. e 12. e 13. a 14. a 15. b 16. a 17. e 18. b 19. b 20. e
21. b 22. c 23. e 24. e 25. a 26. a 27. a 28. a 29. a 30. a
31. c 32. e 33. d 34. d 35. d 36. b 37. c 38. a 39. a 40. b
41. c 42. a 43. b 44. a 45. c 46. e 47. a 48. e 49. c 50. b
51. a 52. d 53. a 54. e 55. b 56. d 57. c 58. c 59. e 60. d
61. c 62. b 63. b 64. c 65. b 66. c 67. e 68. b 69. b 70. d
71. a 72. d 73. a 74. a 75. b 76. e 77. c 78. a 79. a 80. d
81. e 82. a 83. c 84. e 85. d 86. d 87. b 88. d 89. d 90. c
91. a 92. b 93. a 94. a 95. a 96. a 97. b 98. a 99. a 100. b