PSYC 211

Sample Multiple Choice Questions

1. **Which of the following is consistent with Blest's study of the impact of background pattern on consumption of worms by birds?**
   a. Background pattern made no difference in this study.
   b. Birds avoided backgrounds that resembled the bark of a tree.
   c. Worms were most likely to be eaten when placed on a background that contained an eyespot pattern.
   d. Birds rapidly approached backgrounds that contained eyespot patterns.
   e. Backgrounds that contained eyespot patterns were avoided by the birds.

2. **Which of the following is true of ion distribution across the axon membrane?**
   a. Chloride ions are more concentrated inside the axon membrane
   b. Potassium ions are more concentrated outside the cell membrane.
   c. The action potential is the balance point between diffusion and electrostatic pressure
   d. Sodium ions are more concentrated outside the axon membrane.
   e. Sodium ions are more concentrated inside the axon membrane.

3. **A lesion technique that is selective for cell bodies involves**
   a. aspiration of tissue using a pipette.
   b. overstimulation of glutamate receptors by kainic acid.
   c. the flow of alternating current at the tip of an electrode.
   d. the flow of electrical current through an electrode.
   e. Infusing a local anesthetic into a particular part of the brain.

4. **The pons is located**
   a. immediately ventral to the cerebellum.
   b. beneath the hypothalamus.
   c. caudal to the medulla.
   d. rostral to the frontal cortex.
   e. rostral to the hypothalamus.

5. **A scientist who holds a monism philosophy would be comfortable with which of the following statements?**
   a. The universe is a mental construction.
   b. Both hemispheres of the brain work together to form the mind.
   c. The mind is not composed of matter.
   d. Everything is made of matter and energy.
   e. The body is physical whereas the mind is spiritual.

6. **The planning and execution of movements is a function performed by the association cortex within the _____ cortical lobe.**
   a. occipital
   b. frontal
   c. parietal
   d. insular
   e. temporal

7. **Neil has accidentally ingested a toxic chemical which has made him unconscious and will soon kill him. Which route of administration would emergency physicians most likely use to administer an antidote for the toxin?**
   a. intravenous
   b. oral
   c. topical
   d. rectal
   e. oral and rectal

Sample Multiple Choice Questions

8. **If a light stimulus that contains an equal number of all wavelengths is presented to humans, they will report a perception of**
   a. a black color.
   b. a rainbow of colors.
   c. mostly purple.
   d. white.
   e. a fuzzy set of alternating black and white bars.

9. **Which of the following supports the notion that brain development can be modified by experiences?**
   a. The motor cortex of a blind person is enlarged relative to that of a sighted person
   b. The somatosensory cortex in the cortical regions devoted to control of the fingers is smaller in expert guitar players relative to novice players.
   c. The visual cortex is larger in blind persons.
   d. Apoptosis trims the number of dendritic branches in the brain.
   e. The development of the neural circuits for depth perception require input from both eyes during a critical period.

10. **Movement of cargo from one end of the axon to the other involves _____ along the _____.**
   a. axoplasmic transport; myelin sheath
   b. facilitated diffusion; exterior of the cell membrane
   c. facilitated diffusion; neurofilaments
   d. protein synthesis; microtubules
   e. axoplasmic transport; microtubules

11. **_____ refers to the concept that human maturation takes a long time relative to other species.**
   a. Adaptation
   b. Mutational drift
   c. Schizotemy
   d. Neoteny
   e. Allodyny

12. **The membrane of a nerve cell is comprised of**
   a. protein molecules.
   b. vesicle remnants.
   c. a double layer of lipid molecules.
   d. cytoplasm.
   e. a single layer of lipid molecules interfaced with a layer of protein molecules.

13. **The functional magnetic resonance imaging (fMRI) technique measures changes in _____ to image brain metabolic activity.**
   a. GABA
   b. x-ray diffraction
   c. blood oxygen level
   d. magnetic waves
   e. glucose levels

14. **Which of the following is NOT correct regarding CSF?**
   a. CSF is produced by the choroid plexus.
   b. The total brain volume of CSF is about 125 ml.
   c. CSF functions to cushion the brain against sharp movements.
   d. More than 12 hours is required to replace half of the CSF volume in a human brain
   e. Loss of CSF would result in compression of brain tissue onto the ventral skull surface.

Sample Multiple Choice Questions

15. **Assume that electrical stimulation of the right motor cortex elicits limb movements on the left side of the body. In this instance, we would describe this as a _____ organization of motor cortex and the muscles of the body.**
    a. contralateral
    b. contramedial
    c. ipsilateral
    d. bilateral
    e. contrasagittal

16. **Drugs that facilitate the postsynaptic receptor effects are termed**
    a. agonists.
    b. ligands.
    c. synergists.
    d. antagonists.
    e. pheromones.

17. **Which of the following does NOT belong together?**
    a. rods; sensitive to low levels of light
    b. cones; provide excellent visual acuity
    c. cones; provide information about hue
    d. rods; most prevalent in the central retina
    e. blind spot; lack of photoreceptors

18. **Of the structures in the following list, cresyl violet stains _____ most intensely.**
    a. dendrites
    b. axons
    c. synapses
    d. cell bodies
    e. terminal boutons

19. **Temporary inactivation of an area in human cortex that is analogous to area V5 in primate brain would be expected to**
    a. improve facial recognition.
    b. impair perception of movement.
    c. alter color perception.
    d. impair facial recognition.
    e. impair object identification.

20. **When light strikes a molecule of photopigment, the membrane potential undergoes a(n) _____ , which in turn _____ .**
    a. action potential; releases an excitatory transmitter onto the ganglion cell
    b. hyperpolarization; reduces release of an inhibitory transmitter onto the bipolar cell
    c. depolarization; releases an excitatory transmitter onto the ganglion cell
    d. action potential; releases an inhibitory transmitter onto the ganglion cell
    e. hyperpolarization; increases the release of an inhibitory transmitter onto the bipolar cell