Chapter 11 Quiz 1

1. The motor division of the PNS consists of the
   1. CNS and the ANS
   2. efferent nervous system and the somatic nervous system
   3. afferent nervous system and the CNS
   4. afferent nervous and the CNS
   5. somatic nervous system and the ANS
2. Oligodendrocytes
   1. form the myelin sheath of neurons within the CNS
   2. aid in the circulation of CSF
   3. form the myelin sheath of neurons within the ANS
   4. form the myelin sheath of neurons within the PNS
   5. control the chemical environment around neurons within the CNS
3. Schwann cells
   1. form the myelin sheath of neurons within the ANS
   2. form the myelin sheath of neurons, within the CNS
   3. form the myelin sheath of neurons, within the PNS
   4. aid in the circulation of CSF
   5. control the chemical environment around neurons within the CNS
4. Within the PNS, gaps in the myelin sheath are called
   1. telondendria
   2. nodes of Ranvier
   3. unmyelinated nodes
   4. white matter
   5. neurilemma
5. Functionally, all dipolar neurons are
   1. motor neurons
   2. interneurons
   3. association neurons
   4. efferent neurons
   5. sensory neurons
6. Which of the following is the correct sequence of events in the generation of an action potential?
   1. resting state🡪depolarizing phase🡪repolarizing phase🡪undershoot phase
   2. resting state🡪depolarizing phase🡪repolarizing phase🡪depolarizing phase
   3. resting state🡪undershoot phase🡪repolarizing phase🡪depolarizing phase
   4. resting state🡪repolarizing phase🡪depolarizing phase🡪undershoot phase
   5. resting state🡪depolarizing phase🡪undershoot phase🡪repolarizing phase
7. During the depolarizing phase
   1. there is an decrease in membrane permeability to sodium
   2. hyperpolarization occurs
   3. there is an increase in membrane permeability to potassium
   4. the voltage channels are closed and the voltage gated potassium channels are closed
   5. there is an increase in membrane permeability to sodium and a reversal of the membrane potential
8. Most synapses between neurons are
   1. axodendritic
   2. dendrosomatic
   3. dendrodendritic
   4. axoaxonic
   5. axosomatic
9. The proximate stimulus for the release of neurotransmitter from the axon terminal is
   1. hyperpolarization of the axon terminal
   2. the terminal of the action potential
   3. an influx of Na+
   4. an influx of Ca2+
   5. an influx of K+
10. Action potentials
    1. are only generated along axons
    2. are only generated along dendrites
    3. are the result of summing IPSPs
    4. are generated all along the neuron
    5. cannot be generated during the relative refractory period
11. Which of the following neurotransmitters is/are responsible for the “runner’s high”?
    1. Endorphins
    2. NO
    3. GABA
    4. Norepinephrine
    5. Acetylcholine
12. The type of neural circuit involved in complex types of problem solving, such as mathematics is a
    1. converging unit
    2. parallel after-discharge circuit
    3. oscillating circuit
    4. reverberating circuit
    5. diverging circuit
13. Structurally, interneurons are
    1. pseudounipolar
    2. multipolar
    3. tripolar
    4. unipolar
    5. bipolar
14. An action potential is typically
    1. -70 mV
    2. -50 mV
    3. -55 mV
    4. +100 mV
    5. +30 mV
15. Hyperpolarization is cause by
    1. excessive K+ influx
    2. excessive Na+ influx
    3. excessive Na+ efflux
    4. excessive K+ efflux
    5. excessive Ca+  efflux

Answer Key

1. E 2.A 3.C 4.B 5.D 6.A 7.E

8.A 9.D 10.A 11.A 12.B 13.B 14.E

15.A