

Chapter 2: Neuroscience and Biological Foundations Clicker Questions

Multiple Choice

1. What do we call the branching neuron structures that receive neural impulses from other neurons and convey impulses toward the cell body?

- a) dendrites
- b) somas
- c) axons
- d) terminal buttons

Ans: a

Section Reference: Neural Bases of Behaviour

2. The myelin sheath does which of the following?

- a) covers the axons on neurons
- b) helps to insulate neurons
- c) speeds neural impulses
- d) all of the above

Ans: d

Section Reference: Neural Bases of Behaviour

3. When action potentials reach the axon terminal, they stimulate the release of _____, which then travel across the synaptic gap and bind to receptor sites on the dendrites or cell body of the receiving neurons.

- a) neurotransmitters b) hormones
- c) vesicles
- d) myelin

Ans: a

Section Reference: Neural Bases of Behaviour

4. Which chemical substances in the nervous system are similar in structure and action to opium-based drugs and are involved in pain control, pleasure, and memory?

- a) acetylcholine
- b) endorphins

- c) GABA
- d) hormones

Ans: b

Section Reference: Neural Bases of Behaviour

5. The following neural transmitters are paired with their effects. Which of the following is NOT correctly paired?

- a) serotonin/appetite and sleep
- b) dopamine/neural inhibition in the central nervous system
- c) endorphins/memory and learning
- d) epinephrine/emotional arousal

Ans: b

Section Reference: Neural Bases of Behaviour

6. The _____ nervous system is to arousal as _____ is to calm.

- a) somatic/autonomic
- b) central/peripheral
- c) sympathetic/parasympathetic
- d) parasympathetic/sympathetic

Ans: c

Section Reference: The Organization of the Nervous System

7. The 'fight or flight' response is part of which nervous system?

- a) sympathetic
- b) parasympathetic
- c) somatic
- d) autonomic

Ans: a

Section Reference: The Organization of the Nervous System

8. Which of the following is NOT part of the hindbrain?

- a) corpus callosum
- b) pons
- c) medulla
- d) cerebellum

Ans: a

Section Reference: A Tour through the Brain

9. Which part of the brain is associated with eye and body movements, in response to visual and auditory stimuli?

- a) hindbrain
- b) forebrain
- c) midbrain
- d) central brain

Ans: c

Section Reference: A Tour through the Brain

10. Parietal lobe is to _____ as frontal lobe is to _____.

- a) vision/hearing
- b) motor control and speech production/hearing
- c) vision/pain and touch
- d) pain and touch/ motor control and speech production

Ans: d

Section Reference: A Tour through the Brain