

Webb: Neurology for the Speech-Language Pathologist, 5th Edition

Test Bank

Chapter 1: Introduction to Speech-Language Neurology

MULTIPLE CHOICE

1. In neurology, the concept of *localization of function* refers to:

- A. the fact that the left hemisphere of the brain contains the language center as identified by Broca
- B. the fact that specific behavioral functions appear to be associated with clearly localized sites within the brain
- C. the fact that each organ of the body contributes in its own unique way to the function of the whole
- D. the fact that the two hemispheres of the brain are symmetric in their function

ANS: B

REF: p. 5

2. Lesions in Broca's area cause a(n):

- A. motor aphasia
- B. sensory aphasia
- C. agnosia
- D. apraxia

ANS: A

Broca's area is an expressive speech center, and therefore a lesion in this area of the brain leads to a motor aphasia.

REF: p. 5

3. Lesions in Wernicke's area cause a(n):

- A. motor aphasia
- B. sensory aphasia
- C. agnosia
- D. apraxia

ANS: B

Wernicke's area is responsible for speech recognition; therefore a lesion in this area results in a sensory aphasia.

REF: p. 5

4. A dysarthria is:

- A. a disorder of cortical sensory recognition
- B. a disorder of executing motor acts as a result of a brain lesion
- C. a group of fibers connecting areas or centers of the brain
- D. a neurologic speech disorder

ANS: D

This is the definition of dysarthria.

REF: p. 6

5. Which of the following is true of the clinicopathologic method in neurology?

- A. It is the method of establishing a link between the site of a lesion and the function that is lost or modified.
- B. It is the method of using modern imaging techniques to determine the site of a brain lesion.
- C. It is rarely applied in practical neurologic diagnosis.
- D. It applies only to lesions in Wernicke's area.

ANS: A

The clinicopathologic method is defined as the method of establishing a link between the site of a lesion and the function that is lost or modified.

REF: p. 7

6. Which of the following is NOT true of CT scans?

- A. CT scans involve passing an x-ray beam through the brain.
- B. CT scans provide a two-dimensional view of three-dimensional objects.
- C. CT scan images are sometimes enhanced by use of a contrast substance.
- D. CT scans allow for the calculation of the density of tissue in a particular cross-section of the brain.

ANS: B

CT scans provide a three-dimensional view, which is one of its primary advantages over x-rays, which provide a two-dimensional view of three-dimensional objects.

REF: p. 7

7. Which of the following is NOT true of MRI imaging?

- A. MRI imaging utilizes radio waves.
- B. MRI imaging provides an excellent computer-generated pictorial image of the brain.
- C. MRI imaging uses a strong magnetic field to determine the distribution of water molecules in living tissue.
- D. MRI is a much more cost-effective technique than CT imaging.

ANS: D

MRI images are more expensive to generate than CT images.

REF: pp. 7-8

8. Which of the following imaging techniques would be most effective for identifying subcellular brain pathology?

- A. CT
- B. MRI
- C. PET
- D. X-ray

ANS: C

PET scanning allows for regional three-dimensional quantification of glucose and oxygen metabolism or blood flow in the human brain for the detection of subcellular brain pathology.

REF: p. 10

9. A PET scan measures what type of brain activity?

- A. electronic neural transmission
- B. glucose metabolism
- C. brain waves
- D. the flow of cerebrospinal fluid

ANS: B

PET scans use radioactively labeled glucose to measure metabolic activity in the brain.

REF: p. 10

10. Which of the following would be most useful for measuring electronic neuronal transmission in the brain?

- A. EEG
- B. MRI
- C. PET
- D. CT

ANS: A

EEG (electroencephalography) measures the electronic neuronal transmission in the brain with the use of noninvasive scalp electrodes.

REF: p. 12

11. The term *cephalic* can be used in place of which anatomical directional term?

- A. superior
- B. ventral
- C. dorsal
- D. inferior

ANS: A

Cephalic refers to the upper region and is therefore interchangeable with the term *superior*.

REF: p. 13

12. Structures lying at the base of the brain may be anatomically described as being:

- A. dorsal
- B. rostral
- C. cephalic
- D. ventral

ANS: D

Ventral (toward the front) is also sometimes used to describe structures at the base of the brain.

REF: p. 13