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