

Linguistics and Human Physiology

Linguistics · Answer Key · 12 Questions

1. Which brain area, typically located in the left frontal lobe, is primarily responsible for speech production?

- A) Wernicke's area
- B) Broca's area**
- C) Occipital lobe
- D) Cerebellum

2. What is the primary role of the larynx during the process of human phonation?

- A) To filter inhaled air
- B) To shape tongue position
- C) To house the vocal folds**
- D) To store oxygen

3. Which cranial nerve is most directly responsible for controlling the muscles involved in articulation and tongue movement?

- A) Hypoglossal nerve**
- B) Optic nerve
- C) Olfactory nerve
- D) Trochlear nerve

4. What is the medical term for the difficulty in producing speech sounds, often resulting from physical damage to the nervous system?

- A) Dysarthria**
- B) Dysphagia
- C) Amnesia
- D) Hyperopia

5. The resonance of human speech sounds is primarily determined by the configuration of which anatomical structures?

- A) The vocal tract**
- B) The lungs
- C) The fingernails
- D) The sinuses

6. Which physiological process is essential for the production of 'plosive' consonant sounds like /p/ and /b/?

A) Nasal airflow

B) Complete closure of the oral cavity

C) Vibration of the esophagus

D) Inhalation through the nose

7. Damage to the arcuate fasciculus, the nerve pathway connecting Broca's and Wernicke's areas, typically results in which condition?

A) Conduction aphasia

B) Color blindness

C) Restless leg syndrome

D) Vertigo

8. In linguistic phonetics, what is the function of the soft palate (velum) during the production of nasal sounds?

A) It rises to block the nasal cavity

B) It lowers to allow airflow into the nasal cavity

C) It remains stationary

D) It presses against the teeth

9. Which structural feature of the human respiratory system provides the continuous airflow required for sustained speech?

A) Diaphragm

B) Esophagus

C) Small intestine

D) Gallbladder

10. The production of 'fricative' sounds, such as /s/ or /f/, relies on which physical mechanism?

A) Total obstruction of air

B) Turbulent airflow through a narrow constriction

C) Complete silence

D) High-pressure vocal fold vibration

11. What is the name of the bone located in the neck that supports the tongue and is vital for human speech?

A) Hyoid bone

B) Femur

C) Patella

D) Scapula

12. Which pair of biological structures vibrates to produce the primary source of sound for voiced speech?

- A) Vocal folds**
- B) Eardrums
- C) Tonsils
- D) Salivary glands