

Advanced Phonetics: Scientific Principles and Theories

Phonetics · Practice Test · 8 Questions

1. According to the acoustic theory of speech production, the primary acoustic correlate of vowel quality is determined by the relative positions of which two formants?

- A) F1 and F2
- B) F0 and F1
- C) F2 and F3
- D) F0 and F3

2. Which phonetic feature is characterized by the presence of a sudden, significant drop in acoustic energy and a decrease in fundamental frequency (F0) at the end of an utterance?

- A) Terminal F0 Fall (downstep)
- B) Laryngealization
- C) Glottal Stop
- D) Voiceless Plosive Aspiration

3. The perceptual phenomenon of auditory enhancement, where the perception of a speech sound is influenced by surrounding sounds, is most directly explained by which concept?

- A) Articulatory undershoot
- B) Phonemic restoration
- C) Auditory masking
- D) Coarticulation

4. In the spectrographic analysis of speech, what acoustic feature typically distinguishes a voiced alveolar stop from a voiceless alveolar stop?

- A) Voice bar (voicing bar)
- B) Burst noise
- C) Acoustic phase coherence
- D) Spectral tilt

5. Which theory posits that the motor commands sent from the brain to the articulators are the primary units of speech production, rather than acoustic targets?

- A) Motor theory of speech perception
- B) Direct real-time feedback theory
- C) Auditory feedback theory
- D) Auditory theory of speech perception

6. The phenomenon of 'sonority sequencing principle' in phonology, which describes the typical pattern of increasing sonority within a syllable, is most closely related to which phonetic concept?

- A) Gestural overlap
- B) Prosodic contour
- C) Articulatory ease
- D) Acoustic intensity variation

7. What acoustic parameter is most reliably used to distinguish between different types of fricatives (e.g., /s/ vs. /ʃ/)?

- A) Spectral distribution of noise energy
- B) Fundamental frequency (F0)
- C) Duration of the frication interval
- D) Amplitude envelope

8. The concept of 'phonetic space' in modeling speech perception and production suggests that phonemes are represented as points in a multi-dimensional space where proximity reflects similarity in which domain?

- A) Articulatory or acoustic features
- B) Orthographic representation
- C) Semantic meaning
- D) Grammatical function