

35 In the cochlea

- A The perilymph and cerebrospinal fluid are connected by the vestibular aqueduct.
- B The scala media has a resting electrical potential of + 80 mV.
- C Short travelling waves are produced by low pitched sound stimuli.
- D The cochlear microphonic is generated at the hair-cell tectorial membrane interface.
- E Summating potentials are predominantly produced by outer hair cell activity.

36 Theories of hearing

- A Helmholtz suggested a precise place of vibration of the basilar membrane for each frequency.
- B The 'telephone theory' suggested a simple 1:1 ratio of frequency of sound stimuli and firing of nerve action potentials.
- C Wever suggested that between 400 and 5000 Hz groups of nerve fibres fired in temporal sequence.
- D The volley theory states that frequencies above 5000 Hz are heard by the place principle.
- E Loudness appreciation may be increased by the action of outer hair cells.

37 Localization of sound stimulus

- A Interaural phase differences are important for low frequencies.
- B Complex sounds and transients are detected by differences in time of arrival at the ears.
- C The head produces a shadow effect on sound.
- D Monaural hearing is more efficient than binaural hearing.
- E Interaural intensity differences are important for frequencies above 1400 Hz.

38 In testing the hearing

- A The 1024 Hz tuning fork is best for general use.
- B Masking the good ear in severe unilateral sensorineural deafness is essential.
- C The Weber test always lateralizes to the better ear in sensorineural deafness.
- D The Gellé test is abnormal in conductive deafness.
- E In normal ears the Rinne test is usually neutral.