**Chapter 6**

Multiple Choice

1. A hearing aid can only help individuals with damage to the:

A) Cochlea

B) Auditory nerve

\*C) Eardrum

D) Tectoral membrane

 (Reference Page 162)

2. The way we perceive sound depends on the \_\_\_ of the vibrations.

A) Size

B) Shape

C) Frequency

\*D) All of the above

 (Reference Page 164)

3. The number of high/low pressure cycles that occur per second determines the \_\_\_\_\_\_ of a sound wave.

A) Amplitude

B) Loudness

\*C) Frequency

D) All of the above

 (Reference Page 164)

4. Pitch is what we call human perception of:

A) Amplitude

B) Loudness

\*C) Frequency

D) Wave Height

 (Reference Page 164)

5. When sounds enters the ear, it must first pass through the \_\_\_\_ before hitting the tympanic membrane.

\*A) Auditory canal

B) Oval window

C) Malleus

D) Cochlea

 (Reference Page 165)

6. Sound vibrates the \_\_\_ before hitting the oval window.

A) Semicircular canals

\*B) Stapes

C) Pinna

D) Cochlea

 (Reference Page 165)

7. The shape of the cochlea resembles a:

A) Turtle

\*B) Snail

C) Spider

D) Seahorse

 (Reference Page 166)

8. When the inner hair cells are moved and pulled by changes in fluid, the hairs open ion channels, releasing:

\*A) Neurotransmitters

B) Blood

C) Kinocilium

D) Stereocilium

 (Reference Page 166)

9. The organ of Corti contains:

A) Inner hair cells

B) The tympanic membrane

\*C) Outer hair cells

D) The oval window

 (Reference Page 167)

10. When calcium channels in the hair cells open, neurotransmitter is released and makes its way to the:

\*A) Afferent nerve

B) Tip links

C) Cochlea

D) Auditory canal (Reference Page 167)

11. The olivary nuclei are critical when one is trying to \_\_\_\_\_ of sound.

A) Determine the pitch

B) Determine the amplitude

C) Detect the loudness

\*D) Locate the source (Reference Page 168)

12. Damage to the secondary and tertiary auditory cortexes may make it difficult or impossible to:

A) Understand and produce speech

B) Hear a melody within a song

C) Distinguish tones of voice

\*D) All of the above (Reference Page 169)

13. The two otolith organs sense:

A) Pitch and amplitude

\*B) Head tilt and linear acceleration

C) Sound localization

D) Head rotation and angular acceleration (Reference Page 171)

14. When an individual moves, the \_\_\_\_ moves relative to the hair cells attached to the head.

\*A) Otolith

B) Semicircular canals

C) Utricle

D) Anterior vertical canal

 (Reference Page 172)

15. We can determine that the Pacinian corpuscles and Ruffini's endings are used for sensing strong pressure due to their location in the deeper layers and skin and their larger:

A) Hair folicles

B) Neurotransmitter vesicles

\*C) Receptive fields

D) Axons (Reference Page 173)

16. Extremely hot and cold temperatures are sensed by the:

\*A) Thermal nociceptors

B) Chemical nociceptors

C) Thermoreceptors

D) Mechanical nociceptors (Reference Page 174)

17. What is proprioception?

A) Visceral senses

\*B) The sense of position and movement of one's own body

C) The ability to distinguish between hot and cold temperatures

D) The ability to keep your eyes focused on a target while moving your head (Reference Page 175)

18. Golgi tendon organs are located:

A) In the thalamus

B) Next to the spleen

\*C) Where the tendons meet muscles

D) Just below and to the left of the heart (Reference Page 175)

19. Chemoreceptors have the ability to:

\*A) trigger thirst

B) Detect heading

C) Trigger pain after being bitten by a poisonous spider

D) Distinguish between being upright and upside down (Reference Page 176)

20. Neuropathic pain is caused by:

A) Extreme heat on the skin

B) Damaged chemoreceptors

C) A person believing that they are in pain

\*D) Problems in the central nervous system pathway (Reference Page 177)

21. Papillae fall into three categories, based on their:

A) Location

\*B) Shape

C) Taste receptor sites

D) Color (Reference Page 179)

22. The prototypical stimuli for salty is:

A) Sucrose

B) Citric acid

\*C) Sodium chloride

D) Quinine (Reference Page 179)

23. Taste receptors are activated in one of two ways. There is either permeation of ion channels, or activation of:

A) GABA

B) Gray matter

C) Epinephrine

\*D) G-protein-coupled receptors (GPCRs) (Reference Page 179)

24. The airborne chemicals perceived as scent are referred to as:

\*A) Odorants

B) Molecules

C) Tastants

D) Photons (Reference Page 182)

25. In intense physical situations, the \_\_\_\_ becomes highly active, influencing the linking of time and memory.

A) Thalamus

\*B) Amygdala

C) Hypothalamus

D) Cerebellum (Reference Page 189)