

Review #5

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Questions

1. Ganglion cells converge to form:
 - a. the optic nerve.
 - b. bipolar cells.
 - c. the auditory nerve.
 - d. the basilar membrane.
 - e. the olfactory epithelium.

2. Damage to the temporal lobe region of the brain essential for facial recognition produces a loss of:
 - a. perception.
 - b. signal detection.
 - c. transduction.
 - d. accommodation.
 - e. sensation.

3. Cocking your head would be most useful for detecting the _____ of a sound.
 - a. timbre
 - b. pitch
 - c. loudness
 - d. amplitude
 - e. location

4. The cochlea is to the ear as the _____ is to the eye.
 - a. pupil
 - b. retina
 - c. lens
 - d. cornea
 - e. optic nerve

5. Taste receptors are located:
 - a. on the top of the tongue.
 - b. on the sides of the tongue.
 - c. on the roof of the mouth.
 - d. in all the above places.

6. The absolute threshold is the minimum amount of stimulation that a person needs to detect a stimulus:
 - a. at the beginning of a sensory experience.
 - b. on a subliminal level.
 - c. 50 percent of the time.

d. reliably on any occasion.

7. The amplitude of electromagnetic waves determines the _____ of light.

- a. absolute threshold
- b. hue
- c. brightness
- d. difference threshold
- e. wavelength

8. Giulio's bag of marbles is twice as heavy as Jim's. If it takes 5 extra marbles to make Jim's bag feel heavier, it will take 10 extra marbles to make Giulio's bag feel heavier. This best illustrates:

- a. the opponent-process theory.
- b. accommodation.
- c. frequency theory.
- d. sensory adaptation.
- e. Weber's law.

9. Which of the following play the biggest role in our feeling dizzy and unbalanced after a thrilling roller coaster ride?

- a. olfactory receptors
- b. feature detectors
- c. basilar membranes
- d. bipolar cells
- e. semicircular canals

10. The volley principle is particularly relevant to the _____ theory.

- a. opponent-process
- b. place
- c. gate-control
- d. frequency

11. The basilar membrane is located in the:

- a. middle ear.
- b. auditory canal.
- c. semicircular canal.
- d. cochlea.

12. Humans experience the longest visible electromagnetic waves as the color _____ and the shortest visible waves as _____.

- a. blue-violet; red
- b. red; green
- c. blue; yellow
- d. black; white
- e. red; blue-violet

13. When most people stare first at a blue circle and then shift their eyes to a white surface, the

afterimage of the circle appears:

- a. green.
- b. red.
- c. yellow.
- d. blue.

14. The discovery that high-frequency sound waves trigger activity mostly near the beginning of the basilar membrane supports the _____ theory.

- a. gate-control
- b. frequency
- c. Young-Helmholtz
- d. opponent-process
- e. place

15. The process by which we select, organize, and interpret sensory information in order to recognize meaningful objects and events is called:

- a. sensory adaptation.
- b. parallel processing.
- c. sensation.
- d. perception.
- e. accommodation.

16. Which of the following would play a role in quickly alerting you to a gas leak in your home?

- a. vestibular sacs
- b. olfactory receptors
- c. bipolar cells
- d. feature detectors
- e. basilar membrane

17. The most light-sensitive receptor cells are the:

- a. ganglion cells.
- b. cones.
- c. bipolar cells.
- d. rods.

18. Accommodation refers to the:

- a. diminishing sensitivity to an unchanging stimulus.
- b. system for sensing the position and movement of muscles, tendons, and joints.
- c. quivering eye movements that enable the retina to detect continuous stimulation.
- d. process by which stimulus energies are changed into neural messages.
- e. process by which the lens changes shape in order to focus images on the retina.

19. With her eyes closed, Sandra can accurately touch her mouth, nose, and chin with her index finger. Sandra's accuracy illustrates the importance of:

- a. accommodation.
- b. kinesthesia.

- c. sensory interaction.
- d. sensory adaptation.
- e. feature detectors.

20. Joe Wilson, age 55, has been told by experts that a hearing aid would restore his lost sense of hearing. It is likely that Joe's hearing loss involves problems within the:

- a. inner ear.
- b. middle ear.
- c. auditory nerve.
- d. basilar membrane.

21. The simultaneous stimulation of adjacent cold and warmth spots on the skin produces the sensation of:

- a. hot.
- b. cold.
- c. pressure.
- d. wetness.

22. Although Mandume was sitting right next to his parents, he smelled a skunk minutes before they did. Apparently, Mandume has a lower _____ for skunk odor than his parents have.

- a. accommodation level
- b. tolerance level
- c. olfactory saturation level
- d. absolute threshold
- e. feature detector

23. According to the Young-Helmholtz theory:

- a. the retina contains three kinds of color receptors.
- b. color vision depends on pairs of opposing retinal processes.
- c. the size of the difference threshold is proportional to the intensity of the stimulus.
- d. certain nerve cells in the brain respond to specific features of a stimulus.

24. Jennifer can tune her guitar more effectively than Maria, because Jennifer is better at detecting whether specific strings are playing too sharp or too flat. With respect to tone sensitivity, Maria apparently has a _____ threshold than does Jennifer.

- a. higher difference
- b. higher absolute
- c. lower difference
- d. lower absolute

25. When you look at a vertical line, you are probably activating different _____ than when you look at a horizontal line.

- a. feature detectors
- b. opponent processes
- c. sensory thresholds
- d. hair cells

26. The feature detectors identified by Hubel and Weisel respond to specific aspects of _____ stimulation.

- a. taste
- b. visual
- c. auditory
- d. olfactory
- e. kinesthetic

27. The gate-control theory attempts to explain how:

- a. certain nerve cells in the brain respond to specific features of a visual stimulus.
- b. the perception of pitch is related to the specific area of the basilar membrane that is activated.
- c. the nervous system blocks or allows pain signals to pass to the brain.
- d. color vision depends on pairs of opposing neural processes.

28. Hearing a sequence of sounds of different pitch is to _____ as recognizing the sound sequence as a familiar melody is to _____.

- a. the just noticeable difference; accommodation
- b. absolute threshold; difference threshold
- c. sensory interaction; feature detection
- d. feature detection; sensory interaction
- e. sensation; perception

29. People's response to subliminal stimulation indicates that:

- a. they experience a sense of discomfort whenever they are exposed to subliminal stimuli.
- b. their subconscious minds are incapable of resisting subliminally presented suggestions.
- c. they are more sensitive to subliminal sounds than to subliminal sights.
- d. they are capable of processing information without any conscious awareness of doing so.

30. The process by which our sensory systems convert stimulus energies into neural messages is called:

- a. accommodation.
- b. sensory adaptation.
- c. transduction.
- d. sublimation.
- e. sensory interaction.

31. Decibels measure the _____ of sound waves.

- a. transduction
- b. frequency
- c. timbre
- d. length
- e. amplitude

32. Bipolar cells are located in the:

- a. optic nerve.

- b. retina.
- c. blind spot.
- d. lens.
- e. cochlea.

33. If we could stop our eyes from quivering as we stared at a stationary object, the object would probably:

- a. vanish from sight.
- b. stimulate feature detector cells located in the retina.
- c. appear more brilliantly colored.
- d. appear to change colors.

34. Dilation and constriction of the pupil are controlled by the:

- a. optic nerve.
- b. lens.
- c. retina.
- d. iris.
- e. cornea.

35. Sensory adaptation refers to:

- a. the process by which stimulus energies are changed into neural impulses.
- b. diminishing sensitivity to an unchanging stimulus.
- c. the process of selecting, organizing, and interpreting sensory information.
- d. changes in the shape of the lens as it focuses on objects.

Answers

01a 02a 03e 04b 05d 06c 07c 08e 09e 10d 11d 12e 13c 14e 15d 16b 17d 18e
19b 20b 21a 22d 23a 24a 25a 26b 27c 28e 29d 30c 31e 32b 33a 34d 35b