

**Test Two Biological Bases of Behavior/Sensation and Perception****Multiple Choice**

*Identify the choice that best completes the statement or answers the question.*

- \_\_\_\_\_ 1. Trying to see a hidden representational image in a piece of abstract art by looking carefully at each element in the picture and trying to form an image employs which kind of perceptual process?
- selective attention
  - interposition
  - perceptual adaptation
  - bottom-up processing
  - retinal disparity
- \_\_\_\_\_ 2. Evidence that some cones are especially sensitive to red light, others to green light, and still others to blue light is most directly supportive of the \_\_\_\_\_ theory.
- frequency
  - Young-Helmholtz Trichromatic
  - gate-control
  - opponent-process
  - signal detection
- \_\_\_\_\_ 3. Which cells for visual processing are located closest to the back of the retina?
- ganglion cells
  - bipolar cells
  - rods and cones
  - feature detectors
  - occipital cells
- \_\_\_\_\_ 4. The amplitude of electromagnetic waves determines the \_\_\_\_\_ of light.
- absolute threshold
  - brightness
  - hue
  - difference threshold
  - wavelength
- \_\_\_\_\_ 5. Standing in the checkout line at the grocery store, Jerry kept looking at his watch to see the time. As a result, he failed to see that a store employee was being robbed by a person just in front of him. Jerry most clearly suffered
- place theory.
  - inattentional blindness.
  - sensory interaction.
  - blind spot.
  - feature detectors.

- \_\_\_\_\_ 6. As the brain receives information about the lines, angles, and edges of objects in the environment, higher-level cells process and interpret the information to consciously recognize objects. This process best illustrates
- sensation.
  - bottom-up processing.
  - perception.
  - selective attention.
  - psychophysics.
- \_\_\_\_\_ 7. Imagine your friend walking toward you in the hall at school. As your friend gets closer, the image cast on your retina
- gets smaller.
  - gets larger.
  - gets darker.
  - stays exactly the same.
  - appears higher in your field of vision.
- \_\_\_\_\_ 8. The minimum amount of stimulation a person needs to detect a stimulus 50 percent of the time is called the
- adaptation threshold.
  - difference threshold.
  - subliminal threshold.
  - absolute threshold.
  - change threshold.
- \_\_\_\_\_ 9. The process by which our sensory systems convert stimulus energies into neural messages is called
- priming.
  - sensory adaptation.
  - transduction.
  - parallel processing.
  - sensory interaction.
- \_\_\_\_\_ 10. The ability to simultaneously recognize the color, shape, size, and speed of an oncoming automobile best illustrates
- sensory interaction.
  - kinesthesia.
  - parallel processing.
  - subliminal perception.
  - blindsight.

- \_\_\_\_\_ 11. Which process allows more light to reach the periphery of the retina?
- accommodation of the lens
  - transduction of the blind spot
  - dilation of the pupil
  - sensory adaptation of feature detectors
  - focusing light effectively on the fovea
- \_\_\_\_\_ 12. Which of the following types of cells are located in the brain's occipital lobe?
- rods and cones
  - bipolar cells
  - hair cells
  - feature detectors
  - cochlea cells
- \_\_\_\_\_ 13. The local fire department sounds the 12 o'clock whistle. The process by which your ears convert the sound waves from the siren into neural impulses is an example of
- sensory adaptation.
  - accommodation.
  - parallel processing.
  - transduction.
  - sensory interaction.
- \_\_\_\_\_ 14. Color constancy refers to the fact that
- light waves reflected by an object remain constant despite changes in lighting.
  - objects are perceived to be the same color even if the light they reflect changes.
  - the perceived color of an object has a constant relation to its brightness.
  - the frequency of light waves is directly proportional to the light's wavelength.
  - colors remain the same hue even when the tint changes under our difference threshold.
- \_\_\_\_\_ 15. Dilation and constriction of the pupil are controlled by the
- optic nerve.
  - lens.
  - retina.
  - iris.
  - cornea.
- \_\_\_\_\_ 16. Heather Sellers suffers from prosopagnosia and is unable to recognize her own face in a mirror. Her difficulty stems from a deficiency in
- top-down processing.
  - transduction.
  - kinesthesia.
  - sensation.
  - accommodation.

- \_\_\_\_\_ 17. The organization of two-dimensional retinal images into three-dimensional perceptions is called
- retinal disparity.
  - monocular cues.
  - perceptual constancy.
  - depth perception.
  - sensory interaction.
- \_\_\_\_\_ 18. The most light-sensitive receptor cells are the
- ganglion cells.
  - cones.
  - bipolar cells.
  - rods.
  - iris.
- \_\_\_\_\_ 19. When most people stare at a red square and then shift their eyes to a white surface, the afterimage of the square is
- yellow.
  - red.
  - green.
  - blue.
  - white.
- \_\_\_\_\_ 20. Sensory adaptation helps us to focus our attention on what kind of stimuli?
- familiar
  - subliminal
  - changing
  - intense
  - transduced
- \_\_\_\_\_ 21. The perceptual tendency to group together stimuli that are near each other is called
- interposition.
  - perceptual set.
  - proximity.
  - closure.
  - disparity.
- \_\_\_\_\_ 22. Objects are brought into focus on the retina by changes in the curvature and thickness of the
- rods and cones.
  - lens.
  - bipolar cells.
  - optic nerve.
  - cornea.

- \_\_\_\_\_ 23. Certain stroke victims report seeing nothing when shown a series of sticks, yet they are able to correctly report whether the sticks are vertical or horizontal. This best illustrates
- prosopagnosia.
  - serial processing.
  - the McGurk effect.
  - sensory interaction.
  - blindsight.
- \_\_\_\_\_ 24. If the just-noticeable difference for a 10-ounce weight is 1 ounce, the just noticeable difference for an 80-ounce weight would be \_\_\_\_\_ ounce(s).
- 1
  - 2
  - 4
  - 8
  - 10
- \_\_\_\_\_ 25. As your teacher dims the lights to show a movie clip, you still perceive your friend's shirt as red. Which of the following best explains this phenomenon?
- lightness constancy
  - perceptual adaptation
  - color constancy
  - context effects
  - perceptual set
- \_\_\_\_\_ 26. The ability to pay attention to only one voice at a time is called
- gestalt.
  - change blindness.
  - frequency.
  - the cocktail party effect.
  - sensory interaction.
- \_\_\_\_\_ 27. Intensity is to brightness as wavelength is to
- accommodation.
  - frequency.
  - amplitude.
  - hue.
  - disparity.

- \_\_\_\_\_ 28. Which theory emphasizes that personal expectations and motivations influence the level of absolute thresholds?
- a. signal detection theory
  - b. frequency theory
  - c. opponent-process theory
  - d. place theory
  - e. bottom-up theory
- \_\_\_\_\_ 29. A subliminal message is one that is presented
- a. while an individual is under hypnosis.
  - b. below one's absolute threshold for awareness.
  - c. in a manner that is unconsciously persuasive.
  - d. with very soft background music.
  - e. repetitiously.
- \_\_\_\_\_ 30. The light-sensitive inner surface of the eye, containing the rods and cones, is the
- a. fovea.
  - b. optic nerve.
  - c. cornea.
  - d. retina.
  - e. iris.

## Test Two Biological Bases of Behavior/Sensation and Perception Answer Section

### MULTIPLE CHOICE

1. ANS: D                   PTS: 1                   DIF: Medium           OBJ: Unit IV | 16-1  
TOP: Basic Principles of Sensation and perception           SKL: Conceptual/Application
2. ANS: B                   PTS: 1                   DIF: Medium           OBJ: Unit IV | 18-3  
TOP: Color vision   SKL: Factual/Definitional
3. ANS: C                   PTS: 1                   DIF: Medium           OBJ: Unit IV | 18-1  
TOP: The eye        SKL: Factual/Definitional
4. ANS: B                   PTS: 1                   DIF: Medium           OBJ: Unit IV | 18-1  
TOP: The stimulus input: light energy   SKL: Factual/Definitional
5. ANS: B                   PTS: 1                   DIF: Easy              OBJ: Unit IV | 16-2  
TOP: Selective inattention                SKL: Factual/Definitional
6. ANS: C                   PTS: 1                   DIF: Easy              OBJ: Unit IV | 16-1  
TOP: Basic Principles of Sensation and perception           SKL: Factual/Definitional
7. ANS: B                   PTS: 1                   DIF: Easy              OBJ: Unit IV | 19-2  
TOP: Motion perception                    SKL: Conceptual/Application
8. ANS: D                   PTS: 1                   DIF: Easy              OBJ: Unit IV | 16-4  
TOP: Absolute thresholds                 SKL: Factual/Definitional
9. ANS: C                   PTS: 1                   DIF: Easy              OBJ: Unit IV | 16-3  
TOP: Transduction                         SKL: Factual/Definitional
10. ANS: C                  PTS: 1                  DIF: Medium           OBJ: Unit IV | 18-2  
TOP: Parallel processing                   SKL: Conceptual
11. ANS: C                  PTS: 1                  DIF: Difficult         OBJ: Unit IV | 18-1  
TOP: The eye        SKL: Factual/Definitional
12. ANS: D                  PTS: 1                  DIF: Medium           OBJ: Unit IV | 18-2  
TOP: Feature detection                     SKL: Factual/Definitional
13. ANS: D                  PTS: 1                  DIF: Medium           OBJ: Unit IV | 16-3  
TOP: Transduction                         SKL: Conceptual/Application
14. ANS: B                  PTS: 1                  DIF: Medium           OBJ: Unit IV | 19-3  
TOP: Color and brightness constancy     SKL: Factual/Definitional
15. ANS: D                  PTS: 1                  DIF: Easy              OBJ: Unit IV | 18-1  
TOP: The eye        SKL: Factual/Definitional
16. ANS: A                  PTS: 1                  DIF: Difficult         OBJ: Unit IV | 16-1  
TOP: Basic Principles of Sensation and perception           SKL: Factual/Definitional
17. ANS: D                  PTS: 1                  DIF: Easy              OBJ: Unit IV | 19-2  
TOP: Depth perception                     SKL: Factual/Definitional
18. ANS: D                  PTS: 1                  DIF: Medium           OBJ: Unit IV | 18-1  
TOP: The eye        SKL: Factual/Definitional
19. ANS: C                  PTS: 1                  DIF: Medium           OBJ: Unit IV | 18-3  
TOP: Color vision   SKL: Conceptual
20. ANS: C                  PTS: 1                  DIF: Medium           OBJ: Unit IV | 16-5  
TOP: Sensory adaptation                  SKL: Factual/Definitional
21. ANS: C                  PTS: 1                  DIF: Easy              OBJ: Unit IV | 19-1  
TOP: Visual organization                 SKL: Factual/Definitional

22. ANS: B           PTS: 1           DIF: Easy           OBJ: Unit IV | 18-1  
TOP: The eye       SKL: Factual/Definitional
23. ANS: E           PTS: 1           DIF: Medium       OBJ: Unit IV | 18-2  
TOP: Parallel processing       SKL: Factual/Definitional
24. ANS: D           PTS: 1           DIF: Medium       OBJ: Unit IV | 16-4  
TOP: Difference thresholds       SKL: Conceptual
25. ANS: C           PTS: 1           DIF: Easy           OBJ: Unit IV | 19-3  
TOP: Color and brightness constancy       SKL: Conceptual/Application
26. ANS: D           PTS: 1           DIF: Easy           OBJ: Unit IV | 16-2  
TOP: Selective attention       SKL: Factual/Definitional
27. ANS: D           PTS: 1           DIF: Difficult      OBJ: Unit IV | 18-1  
TOP: The stimulus input: light energy       SKL: Conceptual
28. ANS: A           PTS: 1           DIF: Medium       OBJ: Unit IV | 16-4  
TOP: Absolute thresholds       SKL: Factual/Definitional
29. ANS: B           PTS: 1           DIF: Medium       OBJ: Unit IV | 16-4  
TOP: Absolute thresholds       SKL: Factual/Definitional
30. ANS: D           PTS: 1           DIF: Easy           OBJ: Unit IV | 18-1  
TOP: The eye       SKL: Factual/Definitional