1. As much as _____% of the primate brain is devoted to the visual sense.
   A) 20
   B) 35
   C) 50
   D) 70

2. Visual agnosia, the inability to recognize objects because of damage to the cerebral cortex, is broken down into two subtypes: _____ and _____ agnosia.
   A) temporal; parietal
   B) apperceptive; associative
   C) deep; surface
   D) cortical; limbic

3. The axons of which type of retinal cell coalesce and form the optic nerve?
   A) ganglion
   B) bipolar
   C) amacrine
   D) horizontal

4. Hubel and Weisel's groundbreaking work on the primary visual cortex of cats demonstrated that these two types of cells—_____ detectors and _____ detectors—exist there and play an integral part in visual perception.
   A) center; surround
   B) pyramidal; fusiform
   C) what; where
   D) edge; bar

5. Which cue is NOT one that the visual system is able to detect in order to judge distance?
   A) texture gradient
   B) stereopsis
   C) closure
   D) motion parallax

6. Which theory of visual pattern recognition explains our ability to recognize objects by positing that the visual system compares new stimuli with existing memory traces of previously seen similar stimuli to determine if the new item is familiar?
   A) prototype matching
   B) recognition-by-components
   C) template matching
   D) feature analysis

1. Explain how texture gradient, stereopsis, and motion parallax contribute to our visual system's ability to form a 3-D representation of the world.

2. What are the gestalt principles of organization? Identify and describe each one. What is their significance?

3. Explain the template-matching model and feature-analysis approach to visual pattern recognition. Which does the BEST job of accounting for human behavior?

4. What are the shortcomings of template-matching models?

5. Explain what Pritchard's (1961) experiment helped us understand about how objects stabilized on the retina disappear. Why was this result considered important?

6. What role does the fusiform gyrus play in object recognition?

7. Describe the evidence supporting the claim that the processing of faces is special.

8. Why might speech recognition be more difficult than recognizing printed text?

9. What is the word superiority effect and why is it important to the study of pattern recognition?

10. How does Massaro's FLMP model of perception account for pattern recognition? To what extent has his model been seen as successful or unsuccessful in understanding pattern recognition?

1. The text spoke of a soldier who suffered from visual agnosia. This means that he:
   A) was unable to recognize visual objects.
   B) could not recognize or draw simple shapes.
   C) could not recognize or draw complex shapes.
   D) could draw, but not recognize, complex shapes.

2. Cassie cannot recognize simple shapes, nor can she copy drawings. She might have:
   A) anosognosia.
   B) apperceptive agnosia.
   C) associative agnosia.
   D) autotopagnosia.

3. Someone who suffers from associative agnosia:
   A) cannot recognize simple objects.
   B) cannot recognize, but can copy drawings of, simple objects.
   C) cannot recognize, but can copy drawings of, complex objects.
   D) cannot recognize, and cannot copy drawings of, complex objects.

4. Visual images are projected onto the light-sensitive layer of the eye called the:
   A) retina.
   B) ganglial layer.
   C) bipolar layer.
   D) optic chiasma.

5. Cones are to _____ as rods are to _____.
   A) light-sensitive vision; color acuity
   B) black-and-white vision; light-sensitive vision
   C) detail and resolution; color vision
   D) color vision; night vision

6. The fovea is a spot in the retina where:
   A) cones and rods are equally distributed for best all-around vision.
   B) rods are most densely packed and night vision is best.
   C) rods are very densely packed to allow for color vision.
   D) cones are most densely packed and fine detail vision occurs.

1. Differentiate between apperceptive agnosia and associative agnosia.

2. What is the difference between the early phase of visual perception and the later phase?

3. How do edge detectors differ from bar detectors?

4. Describe some of the gestalt principles of organization that are discussed in the text.

5. What distinguishes a template-matching model from a feature-analysis model?

6. Why do computers have difficulty with CAPTCHAs, whereas humans do not?

7. Describe the evidence supporting the use of features in pattern recognition.

8. What happens when an image is kept on the exact same position of the retina?

9. How is recognition-by-components theory different from feature analysis?

10. What are the stages of Biederman's recognition-by-components theory?

11. In speech segmentation, what is meant by the segmentation problem?

12. According to the text, what are three key features of phonemes that help us to distinguish them from each other? Identify and describe each feature.

13. Compare and contrast the strong and weak views of categorical perception.

14. Describe Massaro's FLMP model of pattern recognition.

15. Explain the role of context in speech recognition.

1. Visual agnosia refers to an inability to recognize visual objects that is not related to general intellectual loss or the loss of basic sensory abilities.
   A) True
   B) False

2. Some primates devote as much as 50% of their brains to visual processing.
   A) True
   B) False

3. Patients with associative agnosia have difficulty with the reception of sensory information and often are unable to identify simple shapes such as circles or triangles.
   A) True
   B) False

4. The image that falls on the back of the retina remains sharp.
   A) True
   B) False

5. Cones are equally distributed in the retina.
   A) True
   B) False

6. Rods are responsible for less acute, black-and-white vision.
   A) True
   B) False

7. Information from the left visual field is processed in the left hemisphere.
   A) True
   B) False

8. The right half of the right eye is connected to the right hemisphere.
   A) True
   B) False

9. Unlike brain areas devoted to other senses, the visual cortex is not laid out topologically.
   A) True
   B) False