Cognition 9th edition Matlin Test Bank

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CHAPTER 2: Perceptual Processes I: Visual and Auditory Recognition

2-1. What is perception?

a. Perception is the immediate registration of information by the sensory receptors.
b. Perception uses previous knowledge to gather and interpret the stimuli registered by the senses.
c. Perception involves only unprocessed sensory information.
d. Perception requires complex problem solving.

Answer: b
Section Ref: Overview of Visual Object Recognition
Difficulty: Easy
Objective: 2.1
Objective text: Compare the bottom-up and top-down components of visual object recognition
Bloom's Level: Knowledge

2-2. Which of the following students provides the best, most complete definition of the term "perception"?

a. Andrew: "Perception refers to the process of converting external stimuli into electrical signals within the nervous system."
b. Marie-France: "Perception refers to the registration of visual information on the retina."
c. Marco: "Perception refers to the mental images we create without any input from the external world."
d. Sarah: "Perception uses our previous knowledge to collect and interpret sensory stimuli."

Answer: d
Section Ref: Overview of Visual Object Recognition
Difficulty: Hard
Objective: 2.1
Objective text: Compare the bottom-up and top-down components of visual object recognition
Bloom's Level: Evaluation

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2-3. Suppose that you are looking at an object on your desk. Which of the following is the best example of the term perception?

a. You combine your previous knowledge, together with the information registered by your eyes.
b. You compare this object with a set of geons, to determine the best match.
c. Your retina registers the size, shape, and color of this object.
d. Information from your retina travels directly to the primary visual cortex and the inferotemporal cortex.

Answer: a
Section Ref: Overview of Visual Object Recognition
Difficulty: Medium
Objective: 2.1
Objective text: Compare the bottom-up and top-down components of visual object recognition
Bloom's Level: Application

2-4. According to the introductory discussion about perceptual processes,

a. humans have relatively primitive perceptual processes, compared to models created by artificial intelligence.
b. although perception appears to be straightforward, it actually requires more cognitive effort than tasks such as problem solving.
c. unlike other cognitive tasks, perception requires only bottom-up processing.
d. perception requires both information from the stimulus and knowledge about previous perceptual experiences.

Answer: d
Section Ref: Overview of Visual Object Recognition
Difficulty: Medium
Objective: 2.1
Objective text: Compare the bottom-up and top-down components of visual object recognition
Bloom's Level: Analysis

2-5. The identification of a complex arrangement of visual stimuli is known as

a. sensation.
b. recognition by components.
c. object recognition.
d. connectionism.

Answer: c
Section Ref: Overview of Visual Object Recognition
Difficulty: Easy
Objective: 2.1
Objective text: Compare the bottom-up and top-down components of visual object recognition
Bloom's Level: Comprehension

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2-6. Which of the following is the best example of object recognition?

a. Seeing a particular visual stimulus and mentally rotating it
b. Seeing a particular visual stimulus and identifying it as the letter M
c. Solving a complex reasoning problem
d. Switching your attention from one conversation to another

Answer: b
Section Ref: Overview of Visual Object Recognition
Difficulty: Medium
Objective: 2.1
Objective text: Compare the bottom-up and top-down components of visual object recognition
Bloom's Level: Application

2-7. Right now, the words in this sentence are being registered on the retina of your eye. This representation on your retina is called

a. sensory memory.
b. the template.
c. the proximal stimulus.
d. the distal stimulus.

Answer: c
Section Ref: Overview of Visual Object Recognition
Difficulty: Medium
Objective: 2.1
Objective text: Compare the bottom-up and top-down components of visual object recognition
Bloom's Level: Application

2-8. You are now reading a sentence on an examination. The actual stimulus (the words on the piece of paper) is called

a. the distal stimulus.
b. the proximal stimulus.
c. the geon.
d. the template.

Answer: a
Section Ref: Overview of Visual Object Recognition
Difficulty: Medium
Objective: 2.1
Objective text: Compare the bottom-up and top-down components of visual object recognition
Bloom's Level: Application

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2-9. Suppose that you hear another student turning a page of this exam. The representation of that noise by the receptors in your auditory system is called

a. iconic memory.
b. an illusory contour.
c. the proximal stimulus.
d. the distal stimulus.

Answer: c
Section Ref: Overview of Visual Object Recognition
Difficulty: Medium
Objective: 2.1
Objective text: Compare the bottom-up and top-down components of visual object recognition
Bloom's Level: Application

2-10. Which of the following statements about object recognition is correct?

a. Visual information is first processed in the primary visual cortex, but it is eventually stored in the retina.
b. In general, we need at least one second to recognize an object.
c. The primary visual cortex is responsible for identifying complex objects; in contrast, other portions of the brain identify lines and simple shapes.
d. Regions of the cortex beyond the primary visual cortex are active when we identify complex objects.

Answer: d
Section Ref: Overview of Visual Object Recognition
Difficulty: Medium
Objective: 2.1
Objective text: Compare the bottom-up and top-down components of visual object recognition
Bloom's Level: Analysis

2-11. Suppose that you look at a television screen for less than a second and then close your eyes. The image that is briefly preserved after the stimulus has disappeared is held in

a. iconic memory.
b. echoic memory.
c. short-term memory.
d. long-term memory.

Answer: a
Section Ref: Overview of Visual Object Recognition
Difficulty: Easy
Objective: 2.1
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Bloom's Level: Comprehension

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2-12. The primary visual cortex is located in the _____ lobe of the brain.

a. frontal
b. occipital
c. temporal
d. parietal

Answer: c
Section Ref: Overview of Visual Object Recognition
Difficulty: Easy
Objective: 2.1
Objective text: Compare the bottom-up and top-down components of visual object recognition
Bloom's Level: Knowledge

2-13. According to the gestalt psychology approach to visual perception,

a. when we look at an object for the first time, we see a random arrangement of stimuli.
b. the distal stimulus is more important than the proximal stimulus.
c. we tend to see well-organized patterns, rather than random-looking stimuli.
d. we first extract the template, and then later we extract the geon.

Answer: c
Section Ref: Overview of Visual Object Recognition
Difficulty: Easy
Objective: 2.1
Objective text: Compare the bottom-up and top-down components of visual object recognition
Bloom's Level: Comprehension

2-14. Suppose that a psychologist loans you an art book and says that the book includes some interesting ambiguous figure-ground pictures. You should expect to see

a. a random arrangement of black-and-white figures.
b. a photo of real-life figures, rather than black-and-white shapes.
c. a picture in which a specific region is the central figure one moment, but this region becomes the background the next moment.
d. a picture that has at least two subjective contours.

Answer: c
Section Ref: Overview of Visual Object Recognition
Difficulty: Easy
Objective: 2.1
Objective text: Compare the bottom-up and top-down components of visual object recognition
Bloom's Level: Comprehension

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2-15. Imagine that you are looking at a geometric drawing. At first, one shape in this drawing seems to be in front of other shapes. The next moment, this same shape seems to be located behind a second shape. This phenomenon is called:

a. depth perception.
b. an illusory contour.
c. an ambiguous figure-ground relationship.
d. holistic recognition.

Answer: c
Section Ref: Overview of Visual Object Recognition
Difficulty: Medium
Objective: 2.1
Objective text: Compare the bottom-up and top-down components of visual object recognition
Bloom's Level: Application

2-16. The discussion of the template model of object recognition pointed out that

a. this model is now the most widely accepted explanation for complex recognition tasks, although it cannot account for simpler tasks.
b. this model is considered to be the most flexible of the current approaches.
c. this model would have difficulty explaining how we can recognize handwritten letters.
d. this model provides the best account for the development of object recognition during childhood.

Answer: c
Section Ref: Overview of Visual Object Recognition
Difficulty: Easy
Objective: 2.1
Objective text: Compare the bottom-up and top-down components of visual object recognition
Bloom's Level: Comprehension

2-17. The template model of object recognition would have the most difficulty explaining

a. how people recognize letters of the alphabet if you turned the letters upside-down.
b. how computers recognize a standardized set of numbers.
c. how people can recognize an isolated letter, without any word context.
d. how people recognize neatly printed numbers.

Answer: a
Section Ref: Overview of Visual Object Recognition
Difficulty: Hard
Objective: 2.1
Objective text: Compare the bottom-up and top-down components of visual object recognition
Bloom's Level: Evaluation

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2-18. The feature-analysis approach to object recognition argues that

a. recognition involves a match between the overall shape of an item and the gestalt features stored in memory.
b. recognition involves detecting specific characteristics of the stimulus.
c. the match between the stimulus and the template must be exactly correct.
d. we need to explain how people are able to recognize the arrangement of objects in a specific scene.

Answer: b
Section Ref: Overview of Visual Object Recognition
Difficulty: Medium
Objective: 2.1
Objective text: Compare the bottom-up and top-down components of visual object recognition
Bloom's Level: Analysis

2-19. The feature-analysis theories

a. can only explain letter recognition; they cannot account for the recognition of other two-dimensional visual stimuli such as triangles or squares.
b. argue that each visual stimulus is unique, with no features in common with other visual stimuli.
c. propose that each visual stimulus must be compared with an idealized representation of an entire stimulus in memory.
d. state that we differentiate among stimuli in terms of a limited number of specific characteristics.

Answer: d
Section Ref: Overview of Visual Object Recognition
Difficulty: Medium
Objective: 2.1
Objective text: Compare the bottom-up and top-down components of visual object recognition
Bloom's Level: Analysis

2-20. In object recognition, an important problem with the feature-analysis approach is that

a. it can only explain how we perceive large objects.
b. it can only explain colored objects.
c. there is no neuroscience evidence for this approach.
d. it cannot explain how we perceive an object from different viewpoints.

Answer: d
Section Ref: Overview of Visual Object Recognition
Difficulty: Medium
Objective: 2.1
Objective text: Compare the bottom-up and top-down components of visual object recognition
Bloom's Level: Analysis

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2-21. You have no difficulty distinguishing between the letters O and W, but it takes longer to distinguish between the letters O and Q. Which theory of object recognition does this support?

a. Template-matching theory
b. Subjective-contour theory
c. Feature-analysis theory
d. Recognition-by-components models

Answer: c
Section Ref: Overview of Visual Object Recognition
Difficulty: Hard
Objective: 2.1
Objective text: Compare the bottom-up and top-down components of visual object recognition
Bloom's Level: Evaluation

2-22. Neuroscience research has been conducted on the response of individual neurons to lines that have different orientations. The results of this research are most compatible with the _____ approach to object recognition.

a. feature-analysis
b. template
c. parallel distributed processing
d. recognition-by-components

Answer: a
Section Ref: Overview of Visual Object Recognition
Difficulty: Easy
Objective: 2.1
Objective text: Compare the bottom-up and top-down components of visual object recognition
Bloom's Level: Comprehension

2-23. Which of the following is the best example of a geon?

a. A template for the letter K, as it is stored in memory
b. A straight, vertical, 2-dimensional line
c. A 3-dimensional cylinder
d. The comparison process used to differentiate a template from a distinctive feature

Answer: c
Section Ref: Overview of Visual Object Recognition
Difficulty: Medium
Objective: 2.1
Objective text: Compare the bottom-up and top-down components of visual object recognition
Bloom's Level: Application

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2-24. The recognition-by-components theory argues that we recognize an object by

a. analyzing the arrangement of simple 3-dimensional shapes that form the object.
b. comparing each object to the idealized version of that object, as stored in long-term memory.
c. registering each major line, curve, and angle of an object.
d. perceiving the overall form of an object as one complete shape or gestalt.

Answer: a
Section Ref: Overview of Visual Object Recognition
Difficulty: Easy
Objective: 2.1
Objective text: Compare the bottom-up and top-down components of visual object recognition
Bloom's Level: Comprehension

2-25. Imagine that you attend a lecture given by a guest lecturer. He emphasizes that people can recognize complex shapes and other visual images—such as animals and machinery—in terms of arrangements of basic 3-D shapes. This lecturer probably would be a strong supporter of which of the following approaches?

a. Top-down processing
b. Template-matching theory
c. Feature-analysis theory
d. Recognition-by-components theory

Answer: d
Section Ref: Overview of Visual Object Recognition
Difficulty: Medium
Objective: 2.1
Objective text: Compare the bottom-up and top-down components of visual object recognition
Bloom's Level: Application

2-26. According to the research on the recognition-by-components theory,

a. the theory is especially accurate in its ability to explain how we perceive moving objects.
b. the theory has difficulty explaining how we recognize three-dimensional objects, though it explains how we can perceive letters of the alphabet.
c. the theory primarily applies to the performance of people who have visual deficits.
d. the theory needs to include a mechanism for recognizing objects seen from an unusual point of view, or else it would be inadequate.

Answer: d
Section Ref: Overview of Visual Object Recognition
Difficulty: Medium
Objective: 2.1
Objective text: Compare the bottom-up and top-down components of visual object recognition
Bloom's Level: Analysis

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2-27. Chapter 2 discusses a concept in object recognition called the "viewer-centered approach." Which of the following students provides the most accurate description of this approach?

a. David: "This approach explains how an object appears to be three-dimensional."
b. Javier: "This is an adjustment that the visual system makes when the viewer walks closer to an object."
c. Melissa: "This is a modification of the recognition-by-components approach, to explain how we perceive an object from an unusual angle."
d. Becca: "This is a theoretical approach to perception that explains how each individual assumes that her or his perception is the only accurate representation."

Answer: c
Section Ref: Overview of Visual Object Recognition
Difficulty: Hard
Objective: 2.1
Objective text: Compare the bottom-up and top-down components of visual object recognition
Bloom's Level: Synthesis

2-28. Bottom-up processing

a. is the most widely accepted explanation for illusory contours.
b. describes the influence of expectations upon object recognition.
c. emphasizes the importance of sensory stimuli in object recognition.
d. explains why we are able to recognize words more easily when they appear in sentences, rather than alone.

Answer: c
Section Ref: Top-Down Processing and Visual Object Recognition
Difficulty: Medium
Objective: 2.2
Objective text: Describe the roles of context and prior knowledge in visual object recognition
Bloom's Level: Analysis

2-29. Bottom-up processing

a. focuses on the contribution of the stimulus to object recognition.
b. emphasizes that we can pay attention to several objects simultaneously.
c. emphasizes that our higher mental processes facilitate object recognition.
d. occurs only after top-down processing has been completed.

Answer: a
Section Ref: Top-Down Processing and Visual Object Recognition
Difficulty: Medium
Objective: 2.2
Objective text: Describe the roles of context and prior knowledge in visual object recognition
Bloom's Level: Analysis

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2-30. If you were to study top-down processing as it applies to smell, which of the following topics would be most relevant?

a. Whether people recognize a lemon fragrance more readily when they see a photo of a lemon than when they see a photo of a rose.
b. Whether the chemical structure of lemon-fragrance molecules is substantially different from the chemical structure of rose-fragrance molecules.
c. Whether the receptors in the nasal passages respond differently to lemon and rose fragrances.
d. Whether the brain stores lemon and rose fragrances in different locations.

Answer: a
Section Ref: Top-Down Processing and Visual Object Recognition
Difficulty: Medium
Objective: 2.2
Objective text: Describe the roles of context and prior knowledge in visual object recognition
Bloom's Level: Application

2-31. Suppose that you walk past the home of your friend, John. Standing in front of the house is someone who somewhat resembles your friend, so you shout, "Hi, John!" To your embarrassment, it is not John but his younger brother—substantially shorter and with darker hair. This error can be traced to

a. serial processing.
b. parallel processing.
c. bottom-up processing.
d. top-down processing.

Answer: d
Section Ref: Top-Down Processing and Visual Object Recognition
Difficulty: Medium
Objective: 2.2
Objective text: Describe the roles of context and prior knowledge in visual object recognition
Bloom's Level: Application

2-32. Your friend Sophie said that she would call you at 8:00 p.m. When the phone rings at 8:00 p.m., you answer and say "Oh, hi, Sophie." Then you realize that the caller is a different friend with a similar voice, but somewhat higher pitched. Your initial error can be explained by

a. change blindness.
b. top-down processing.
c. bottom-up processing.
d. recognition-by-components theory.

Answer: b
Section Ref: Top-Down Processing and Visual Object Recognition
Difficulty: Medium
Objective: 2.2
Objective text: Describe the roles of context and prior knowledge in visual object recognition
Bloom's Level: Application

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2-33. According to the discussion of object recognition,

a. the bottom-up approach emphasizes the importance of previous information in processing new stimuli.
b. top-down processing emphasizes that it is most efficient to begin at the top of a object that you are trying to recognize.
c. top-down processing does not play a major role in object recognition.
d. object recognition must involve both top-down and bottom-up processes.

Answer: d
Section Ref: Top-Down Processing and Visual Object Recognition
Difficulty: Medium
Objective: 2.2
Objective text: Describe the roles of context and prior knowledge in visual object recognition
Bloom's Level: Analysis

2-34. You recognize the letter n more quickly in the word pattern than when it appears by itself. This is an example of

a. top-down processing.
b. bottom-up processing.
c. a template for the letter n.
d. a recognition module.

Answer: a
Section Ref: Top-Down Processing and Visual Object Recognition
Difficulty: Easy
Objective: 2.2
Objective text: Describe the roles of context and prior knowledge in visual object recognition
Bloom's Level: Comprehension

2-35. You can identify a letter more accurately when it appears in a word than when it does not. This phenomenon is called the

a. letter superiority effect.
b. bottom-up effect.
c. word superiority effect.
d. change-blindness effect.

Answer: c
Section Ref: Top-Down Processing and Visual Object Recognition
Difficulty: Easy
Objective: 2.2
Objective text: Describe the roles of context and prior knowledge in visual object recognition
Bloom's Level: Knowledge

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2-36. According to the word superiority effect,

a. we have trouble noticing when one of the letters in a word disappears from the stimulus.
b. we can recognize a letter faster and more accurately when it is part of a word, rather than when this letter appears by itself.
c. we can recognize an unfamiliar word more quickly than an isolated letter of the alphabet.
d. bottom-up processing is more helpful than top-down processing.

Answer: b
Section Ref: Top-Down Processing and Visual Object Recognition
Difficulty: Easy
Objective: 2.2
Objective text: Describe the roles of context and prior knowledge in visual object recognition
Bloom's Level: Comprehension

2-37. Which of the following examples would be most comparable to the word superiority effect if we were to apply this phenomenon to hearing?

a. You can identify a particular phoneme more readily if it is embedded in a word than if you hear that same phoneme in isolation.
b. If you are right-handed, you can identify a spoken word more readily if it is spoken in your right ear, rather than your left ear.
c. You can hear a spoken word more accurately when you see the written pattern at the same time, but this does not apply to smaller segments, such as individual letters.
d. You can recognize and remember short words more readily than long words in a conversation.

Answer: a
Section Ref: Top-Down Processing and Visual Object Recognition
Difficulty: Medium
Objective: 2.2
Objective text: Describe the roles of context and prior knowledge in visual object recognition
Bloom's Level: Application

2-38. Your textbook discussed in some detail a study by Rueckl and Oden (the "bears/beans" study). These researchers manipulated both the features of a letter within a word and the context in which the word appeared. This study demonstrated that

a. both bottom-up and top-down processing operate.
b. under appropriate conditions, people only pay attention to distinctive features.
c. sensory memory can be extended when a word appears in context.
d. top-down processing almost always leads to more accurate pattern recognition.

Answer: a

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Section Ref: Top-Down Processing and Visual Object Recognition
Difficulty: Medium
Objective: 2.2
Objective text: Describe the roles of context and prior knowledge in visual object recognition
Bloom's Level: Analysis

2-39. The term "change blindness" refers to the observation that

a. people with poor eyesight tend not to notice that a visual object is rotating.
b. people often fail to see that an object in a scene has changed.
c. people often fail to notice that a new object has suddenly appeared in a scene.
d. infants are not able to create a gestalt in a subjective-contour figure.

Answer: b
Section Ref: Top-Down Processing and Visual Object Recognition
Difficulty: Easy
Objective: 2.2
Objective text: Describe the roles of context and prior knowledge in visual object recognition
Bloom's Level: Comprehension

2-40. Suppose that you are watching a movie. Two men are talking, and the camera focuses on a man in a blue shirt, with long sideburns. The focus shifts to the other man. Then it returns to the man in the blue shirt—but now his sideburns are about an inch shorter. If you fail to notice that he looks different, you are exhibiting

a. bottom-up processing.
b. change blindness.
c. the principle that face recognition is "special."
d. the recognition-by-components approach.

Answer: b
Section Ref: Top-Down Processing and Visual Object Recognition
Difficulty: Medium
Objective: 2.2
Objective text: Describe the roles of context and prior knowledge in visual object recognition
Bloom's Level: Application

2-41. Change blindness and inattentional blindness are similar because both of these phenomena

a. demonstrate the importance of top-down processing.
b. emphasize the importance of bottom-up processing.
c. illustrate categorical perception.
d. provide support for the recognition-by-components approach to perception.

Answer: a
Section Ref: Top-Down Processing and Visual Object Recognition
Difficulty: Medium
Objective: 2.2
Objective text: Describe the roles of context and prior knowledge in visual object recognition
Bloom's Level: Analysis

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2-42. Suppose that a close friend is telling you about a very emotional experience she has just had. You are paying such close attention to her that you fail to notice that some strangers have just entered the room. This incident is an example of

a. change blindness.
b. illusory contour.
c. inattentional blindness.
d. a gestalt.

Answer: c
Section Ref: Top-Down Processing and Visual Object Recognition
Difficulty: Medium
Objective: 2.2
Objective text: Describe the roles of context and prior knowledge in visual object recognition
Bloom's Level: Application

2-43. Chapter 2 discussed two related topics, called change blindness and inattentional blindness. According to this discussion,

a. we need to monitor our environment more carefully, so that our perception is more accurate.
b. in reality, these cognitive errors can be traced to strategy that makes sense in the real world.
c. both of these topics reflect a basic deficit in object recognition.
d. both of these topics can be traced to overactive bottom-up processing.

Answer: b
Section Ref: Top-Down Processing and Visual Object Recognition
Difficulty: Medium
Objective: 2.2
Objective text: Describe the roles of context and prior knowledge in visual object recognition
Bloom's Level: Analysis

2-44. Suppose that a group of researchers would like to explore how we perceive objects in the real world, rather than just in a laboratory. This approach emphasizes

a. a well-controlled design.
b. the viewer-centered approach.
c. holistic recognition.
d. ecological validity.

Answer: d
Section Ref: Top-Down Processing and Visual Object Recognition
Difficulty: Easy
Objective: 2.2
Objective text: Describe the roles of context and prior knowledge in visual object recognition
Bloom's Level: Comprehension

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2-45. When a study has high ecological validity,

a. people tend to receive similar scores on two different versions of a relevant test.
b. people typically make more errors than if the test is low in ecological validity.
c. at least two researchers recorded the answers supplied by the participants.
d. the methods and results apply to real world applications or settings.

Answer: d
Section Ref: Top-Down Processing and Visual Object Recognition
Difficulty: Easy
Objective: 2.2
Objective text: Describe the roles of context and prior knowledge in visual object recognition
Bloom's Level: Comprehension

2-46. Many researchers argue that face perception is "special"; we process faces in a different way than we process other visual stimuli. According to this perspective,

a. we process the color of human faces before we process their shape.
b. unlike other objects, information about faces does not pass through the primary visual cortex.
c. we recognize faces in terms of their entire shape, rather than in terms of their isolated features.
d. because faces are so complex, we take a long time to recognize that an object is a face; in contrast, we recognize simpler objects much more quickly.

Answer: c
Section Ref: Specialized Visual Recognition Processes
Difficulty: Easy
Objective: 2.3
Objective text: Analyze evidence supporting specialized systems for face recognition
Bloom's Level: Comprehension

2-47. Which of the following students' statements best summarizes the research on face perception?

a. Eduardo: "Faces are perceived in the same fashion as other similarly complex objects."
b. Sarita: "We process faces in terms of their general structure; for other objects, we are more likely to process isolated features."
c. Akiko: "We perceive faces in a more serial fashion, processing one feature at a time, for other objects, features are processed simultaneously."
d. Nelson: "We process faces in a bottom-up fashion; we process other objects in a top-down fashion."

Answer: b
Section Ref: Specialized Visual Recognition Processes
Difficulty: Hard
Objective: 2.3
Objective text: Analyze evidence supporting specialized systems for face recognition
Bloom's Level: Synthesis

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2-48. Suppose that you are looking at a simple geometric design. If you were to perceive it holistically you would

a. first analyze it into parts, and then assemble the parts into a whole.
b. use a visual template that precisely matches the shape of the entire stimulus.
c. recognize it in terms of its overall structure and shape.
d. compare it with a set of features stored in memory.

Answer: c
Section Ref: Specialized Visual Recognition Processes
Difficulty: Easy
Objective: 2.3
Objective text: Analyze evidence supporting specialized systems for face recognition
Bloom's Level: Comprehension

2-49. The discussion about face recognition points out that we perceive a face in terms of a "gestalt." You can therefore conclude that

a. we perceive faces in terms of their overall structure.
b. each element of someone's face (eyes, nose, etc.) is unique to that particular face.
c. we use top-down processing when we perceive a face, moving from the eyes, to the nose, etc.
d. we process faces the same as we process other visual stimuli.

Answer: a
Section Ref: Specialized Visual Recognition Processes
Difficulty: Easy
Objective: 2.3
Objective text: Analyze evidence supporting specialized systems for face recognition
Bloom's Level: Comprehension

2-50. Individuals with prosopagnosia

a. can recognize faces, but not common objects.
b. cannot recognize the emotion shown on a face.
c. cannot recognize faces of even their own spouses or children.
d. may have suffered damage to the occipital lobe.

Answer: c
Section Ref: Specialized Visual Recognition Processes
Difficulty: Medium
Objective: 2.3
Objective text: Analyze evidence supporting specialized systems for face recognition
Bloom's Level: Analysis

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2-51. The face-inversion effect indicates that

a. upright and inverted faces are processed by different lobes of the brain.
b. people can process inverted faces just as quickly as upright faces.
c. faces are processed holistically rather than through their isolated parts.
d. faces are processed in an almost entirely bottom-up fashion.

Answer: c
Section Ref: Specialized Visual Recognition Processes
Difficulty: Medium
Objective: 2.3
Objective text: Analyze evidence supporting specialized systems for face recognition
Bloom's Level: Analysis

2-52. There is a great deal of controversy in neuroscience over

a. the idea that faces are processed differently than other stimuli.
b. the idea that the processing of faces is localized to a specific brain region.
c. the specific location of the fusiform face area of the brain.
d. whether brain damage can affect face processing without affecting the processing of other visual objects.

Answer: b
Section Ref: Specialized Visual Recognition Processes
Difficulty: Medium
Objective: 2.3
Objective text: Analyze evidence supporting specialized systems for face recognition
Bloom's Level: Analysis

2-53. Chapter 2 discusses a study by Burton and his colleagues on people's ability to identify a face that is shown in a video security system. According to the results of this study,

a. people are especially likely to be confident that they correctly identified a person's face if they are familiar with this person.
b. people are surprisingly accurate in identifying the faces of both familiar and unfamiliar persons.
c. people are surprisingly inaccurate in identifying the faces of both familiar and unfamiliar persons.
d. compared to other people, police officers are more accurate on this face-recognition task.

Answer: a
Section Ref: Specialized Visual Recognition Processes
Difficulty: Medium
Objective: 2.3
Objective text: Analyze evidence supporting specialized systems for face recognition
Bloom's Level: Analysis

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2-54. Rhodes' research indicates that people are generally accurate in guessing the ages of unfamiliar persons, based on their faces. This research has important implications for

a. bartenders serving alcohol.
b. students identifying their professors.
c. doctors diagnosing cases of schizophrenia.
d. eyewitnesses identifying suspects from a lineup.

Answer: a
Section Ref: Specialized Visual Recognition Processes
Difficulty: Medium
Objective: 2.3
Objective text: Analyze evidence supporting specialized systems for face recognition
Bloom's Level: Application

2-55. Chapter 2 discussed individual differences in people's ability to judge the facial emotion that is being expressed in a series of photos. The results of this study suggest that people with schizophrenia

a. are significantly more accurate than people in a control group.
b. are just as accurate as people in a control group.
c. are significantly less accurate than people in a control group, but they respond at about the same speed.
d. are significantly less accurate than people in a control group, and they also respond more slowly.

Answer: b
Section Ref: Specialized Visual Recognition Processes
Difficulty: Medium
Objective: 2.3
Objective text: Analyze evidence supporting specialized systems for face recognition
Bloom's Level: Analysis

2-56. Chapter 2 discussed individual differences in the ability to recognize another person's facial expressions. This research showed that individuals with schizophrenia are more likely than people in a control group

a. to respond slowly.
b. to make errors in identifying the facial expression.
c. to use holistic processing.
d. to use a template that processes facial expression.

Answer: a
Section Ref: Specialized Visual Recognition Processes
Difficulty: Medium
Objective: 2.3
Objective text: Analyze evidence supporting specialized systems for face recognition
Bloom's Level: Analysis

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2-57. The term "phoneme" refers to

a. the written representation of a basic speech sound.
b. the basic unit of spoken language.
c. the meaning of a word, within the context of a sentence.
d. the grammatical aspects of a word.

Answer: b
Section Ref: Speech Perception
Difficulty: Easy
Objective: 2.4
Objective text: Discuss two different theoretical approaches to speech perception
Bloom's Level: Knowledge

2-58. The boundaries between words in spoken language

a. are just as distinctive as the boundaries between words in written language.
b. are more distinctive in English than in other languages.
c. are often missing, so that two words are not separated by an actual pause.
d. are difficult for children to perceive, though adults rarely make perceptual errors.

Answer: c
Section Ref: Speech Perception
Difficulty: Easy
Objective: 2.4
Objective text: Discuss two different theoretical approaches to speech perception
Bloom's Level: Comprehension

2-59. According to the research on word boundaries in speech,

a. phonemic restoration helps us detect word boundaries.
b. listeners are typically accurate in detecting word boundaries, even when there is no actual gap.
c. most people are clearly aware that speakers tend to run their words together
d. the boundary between spoken words is even more clear-cut than the boundary between printed words.

Answer: b
Section Ref: Speech Perception
Difficulty: Medium
Objective: 2.4
Objective text: Discuss two different theoretical approaches to speech perception
Bloom's Level: Analysis

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2-60. According to the discussion of phoneme perception,

a. this task is not very challenging because of context cues.
b. this task is not very challenging because each phoneme is pronounced in such a standard fashion.
c. this task is challenging because the English language has over 200 distinct phonemes.
d. this task is challenging because of the variability in speakers' pronunciation of phonemes.

Answer: d
Section Ref: Speech Perception
Difficulty: Medium
Objective: 2.4
Objective text: Discuss two different theoretical approaches to speech perception
Bloom's Level: Analysis

2-61. Which of the following students provides the most accurate summary about phoneme pronunciation, as discussed in the section on speech perception?

a. George: "Humans manage to perceive the phoneme intended by the speaker, even though phoneme pronunciation is quite variable."
b. Angela: "Humans tend to perceive phonemes inaccurately, but top-down processing helps to increase their accuracy."
c. Jakob: "Humans have great difficulty with phoneme perception, because most speakers have sloppy phoneme pronunciation."
d. Galit: "Each phoneme is pronounced in a consistent fashion, so that speech perception is remarkably accurate."

Answer: a
Section Ref: Speech Perception
Difficulty: Hard
Objective: 2.4
Objective text: Discuss two different theoretical approaches to speech perception
Bloom's Level: Synthesis

2-62. Studies of speech perception show that

a. speech sounds are transmitted one at a time, just as letters follow one another in writing.
b. when the first phoneme of a word is being spoken, the mouth prepares to pronounce the next phoneme in the word.
c. a phoneme's sound remains constant, no matter which phonemes precede and follow it.
d. context is of little use in helping people determine the identity of a missing phoneme.

Answer: b

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Section Ref: Speech Perception
Difficulty: Medium
Objective: 2.4
Objective text: Discuss two different theoretical approaches to speech perception
Bloom's Level: Analysis

2-63. The o sound in the word dog influences the position of your mouth when you pronounce the remainder of the word. This phenomenon is called

a. the McGurk effect.
b. categorical perception.
c. phonemic restoration.
d. coarticulation.

Answer: d
Section Ref: Speech Perception
Difficulty: Medium
Objective: 2.4
Objective text: Discuss two different theoretical approaches to speech perception
Bloom's Level: Application

2-64. Which of the following students provides the most accurate information about the variability found in the way we pronounce pronouns?

a. Melissa: "Aside from the pitch of a person's voice, phoneme pronunciation is relatively uniform."
b. Nico: "The variability in pronunciation is so great that we frequently have trouble comprehending a spoken sentence."
c. Annabelle: "Despite the great variability in pronunciation, we perceive speech quite accurately."
d. Alan: "Fortunately, coarticulation is a helpful part of our speech perception, and it compensates for the fact that people's speech shows great variability."

Answer: c
Section Ref: Speech Perception
Difficulty: Hard
Objective: 2.4
Objective text: Discuss two different theoretical approaches to speech perception
Bloom's Level: Synthesis

2-65. Coarticulation is the tendency

a. for phoneme pronunciation to vary slightly, depending on the surrounding phonemes.
b. to read more than one word at a time.
c. to transmit meaning as well as phoneme information in any given English sentence.
d. to use visual cues to help you interpret phonemes.

Answer: a

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Section Ref: Speech Perception
Difficulty: Medium
Objective: 2.4
Objective text: Discuss two different theoretical approaches to speech perception
Bloom's Level: Analysis

2-66. Suppose that you are listening to a lecture, and another student's chair squeaks loudly during the middle of a word, so that the middle of that word cannot be heard. Nonetheless, you do not detect any interruption in the word. This example is closest to which of the following cognitive phenomena?

a. Phonemic restoration
b. Coarticulation
c. Bottom-up processing
d. The recognition-by-components approach

Answer: a
Section Ref: Speech Perception
Difficulty: Medium
Objective: 2.4
Objective text: Discuss two different theoretical approaches to speech perception
Bloom's Level: Application

2-67. According to the discussion of phonemic restoration,

a. if we fail to hear a particular phoneme in a word, we won't be able to identify the word.
b. phonemic restoration makes use of top-down processing.
c. phonemic restoration is typically caused by variations in phoneme pronunciation.
d. phonemic restoration is typically caused by coarticulation.

Answer: b
Section Ref: Speech Perception
Difficulty: Medium
Objective: 2.4
Objective text: Discuss two different theoretical approaches to speech perception
Bloom's Level: Analysis

2-68. Your textbook states that phonemic restoration is a kind of illusion. This statement is true because

a. we think that we hear boundaries between words, even when a physical boundary does not really exist.
b. we think that we are accurate when we replace a missing phoneme, but we typically make many errors.
c. we make too much use of bottom-up processing.
d. we think that we hear a speech sound, even if it is not present in the distal stimulus.

Answer: d

Section Ref: Speech Perception
Difficulty: Medium
Objective: 2.4
Objective text: Discuss two different theoretical approaches to speech perception
Bloom's Level: Analysis

2-69. Research on context and speech perception has demonstrated that

a. people are amazingly accurate in identifying when speech sounds are missing in a sentence.
b. people often do not notice a missing sound when it occurs within the context of a sentence.
c. speech perception is almost entirely a bottom-up process.
d. when a phoneme in a sentence is mispronounced, people typically cannot understand the sentence.

Answer: b
Section Ref: Speech Perception
Difficulty: Medium
Objective: 2.4
Objective text: Discuss two different theoretical approaches to speech perception
Bloom's Level: Analysis

2-70. Heather notes that it is always easier to understand her sister's speech when they converse on Skype as compared to conversing on the telephone. Her sister believes that the sound quality on Skype may be better than on her smart phone. However, Heather thinks about her Cognitive Psychology class and reasons that the phenomenon may be an illustration of

a. coarticulation.
b. phonemic restoration.
c. word boundary effects.
d. the importance of visual cues in speech processing.

Answer: d
Section Ref: Speech Perception
Difficulty: Medium
Objective: 2.4
Objective text: Discuss two different theoretical approaches to speech perception
Bloom's Level: Application

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2-71. Which of the following students best summarizes the information about visual cues and speech perception?

a. Dawan: "Adults who have normal hearing often fail to appreciate the visual cues, even though these cues are helpful."
b. Cheryl: "Surprisingly, adults can perceive speech just as accurately without visual cues as they can with visual cues."
c. Ralph: "Adults cannot distinguish among the visual cues associated with the phonemes, so they do not link these cues with the auditory stimuli."
d. Tiffany: "Although children pay attention to these visual cues, adults do not."

Answer: a
Section Ref: Speech Perception
Difficulty: Hard
Objective: 2.4
Objective text: Discuss two different theoretical approaches to speech perception
Bloom's Level: Synthesis

2-72. Suppose that you are watching a television talk show. The picture on your TV set is clear, but the sound is somewhat muffled. If the visual information helps you interpret some of the words that the talk-show host is saying, you are demonstrating

a. phonemic restoration
b. the phonetic module.
c. coarticulation.
d. the McGurk effect.

Answer: d
Section Ref: Speech Perception
Difficulty: Medium
Objective: 2.4
Objective text: Discuss two different theoretical approaches to speech perception
Bloom's Level: Application

2-73. The research on speech perception demonstrates that

a. each phoneme has a unique but consistent pronunciation.
b. context can be used to identify a missing vowel, but not a missing consonant.
c. people use visual cues from the speaker's mouth in order to perceive an ambiguous sound.
d. listeners typically perceive a solid stream of language, without any breaks in the stream.

Answer: c
Section Ref: Speech Perception
Difficulty: Medium
Objective: 2.4
Objective text: Discuss two different theoretical approaches to speech perception
Bloom's Level: Analysis

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2-74. The theorists who argue for a special mechanism approach to speech perception emphasize that humans have a special-purpose portion of the brain that makes speech perception easier. They call this special mechanism a

a. phonemic restoration unit.
b. coarticulation device.
c. phonetic module.
d. categorical perception module.

Answer: c
Section Ref: Speech Perception
Difficulty: Easy
Objective: 2.4
Objective text: Discuss two different theoretical approaches to speech perception
Bloom's Level: Comprehension

2-75. Suppose that you are reading a journal article that supports the "special mechanism approach" to speech perception. Which of the following statements would you be most likely to see?

a. Humans have an inborn ability that helps them perceive speech sounds.
b. Humans can perceive speech sounds especially well when the sounds are accompanied by music.
c. Speech perception operates in the same way as visual perception.
d. We can remember spoken sentences better than printed sentences.

Answer: a
Section Ref: Speech Perception
Difficulty: Hard
Objective: 2.4
Objective text: Discuss two different theoretical approaches to speech perception
Bloom's Level: Evaluation

2-76. According to the general mechanism approach, speech perception can be explained by

a. the same kind of learning mechanisms that humans use in acquiring other cognitive skills.
b. an innate ability to acquire language.
c. a neural unit in the temporal lobe of the cortex that is "programmed" shortly before birth.
d. listeners' skills in coordinating phonemes with the lip position of a speaker.

Answer: a
Section Ref: Speech Perception
Difficulty: Medium
Objective: 2.4
Objective text: Discuss two different theoretical approaches to speech perception
Bloom's Level: Analysis

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2-77. If you favor the general mechanism approach to speech perception, you would argue that

a. people process speech sounds the same way that they process other kinds of sounds.
b. humans have a special phonetic module that handles all general speech perception tasks.
c. the McGurk effect does not support the general mechanism approach, but most other research supports this approach.
d. people use categorical perception when listening to a language sound; they do not use categorical perception on other cognitive tasks.

Answer: a
Section Ref: Speech Perception
Difficulty: Medium
Objective: 2.4
Objective text: Discuss two different theoretical approaches to speech perception
Bloom's Level: Analysis

2-78. What can we conclude about the two major explanations for speech perception?

a. Humans show categorical perception for nonspeech sounds, which argues against a phonetic module approach.
b. Humans show categorical perception for nonspeech sounds, which argues for a phonetic module approach.
c. Humans cannot use visual cues as aids to the perception of phonemes, which argues against a general mechanism approach.
d. Infants use a general mechanism approach, whereas adults typically use a phonetic module approach.

Answer: a
Section Ref: Speech Perception
Difficulty: Hard
Objective: 2.4
Objective text: Discuss two different theoretical approaches to speech perception
Bloom's Level: Synthesis

2-79. The "general mechanism approach" to speech perception argues that

a. we first obtain a general idea about a spoken message, and then we fill in the specific details.
b. we use similar processes for both speech perception and other auditory perception tasks.
c. learning does not play a major role in speech perception.
d. children are born with a general understanding about speech, and they fill in specific information as they grow older.

Answer: b
Section Ref: Speech Perception
Difficulty: Easy
Objective: 2.4
Objective text: Discuss two different theoretical approaches to speech perception
Bloom's Level: Comprehension

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2-80. Which of the following favors a special mechanism approach to speech perception?

a. Recent discoveries of categorical perception for nonspeech sounds
b. Early research on categorical perception of speech sounds
c. ERP shifts that are similar in processing speech and music
d. The McGurk effect

Answer: b
Section Ref: Speech Perception
Difficulty: Medium
Objective: 2.4
Objective text: Discuss two different theoretical approaches to speech perception
Bloom's Level: Analysis

2-81. Which of the following students provides the best overview about the research on theories of speech perception, as discussed in Chapter 2?

a. Kaitlin: "Because speech is important to human survival, people have a specialized brain structure that helps them decode speech sounds."
b. Anastazia: "The research on categorical perception provides the strongest evidence that the special mechanism approach to speech perception is correct."
c. Samaria: "In general, most theorists believe that the human nervous system processes speech sounds in the same way it processes nonspeech sounds."
d. Jared: "The research on the McGurk effect demonstrates that the special mechanism approach to speech perception is correct."

Answer: c
Section Ref: Speech Perception
Difficulty: Hard
Objective: 2.4
Objective text: Discuss two different theoretical approaches to speech perception
Bloom's Level: Synthesis

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