

# CHAPTER 1: An Introduction to Cognitive Psychology

1-1. Which term or phrase is closest in meaning to the term “cognition”?

- a. Emotion
- b. Mental activity
- c. Behavior
- d. Social activity

Answer: b

Section Ref: What Is Cognitive Psychology?

Difficulty: Easy

1-2. Suppose that a psychologist writes an article on children’s acquisition of gender stereotypes. Which of the following article titles would be most consistent with the cognitive approach?

- a. “How parents’ reinforcement of behaviors shapes stereotypes”
- b. “The effects of classical conditioning on children’s emotional reactions to gender stereotypes”
- c. “How early emotional reactions to parents influence later gender stereotypes”
- d. “Children’s memory for gender-consistent information”

Answer: d

Section Ref: What Is Cognitive Psychology?

Difficulty: Medium

- 1-3. Suppose that you are writing a paper about cognitive processes in people who are depressed. Which of the following topics would be most relevant for your paper?
- Observations of social interactions between people with depression.
  - The effects of vitamin supplements on the activity level of people with depression.
  - The ability of depressed individuals to recall people's names.
  - The relationship between childhood experiences and current adjustment in people with depression.

Answer: c

Section Ref: What Is Cognitive Psychology?

Difficulty: Medium

- 1-4. John is reading his Cognitive Psychology textbook. He notices that his stomach is grumbling, but he thinks, "I will finish this section of the chapter and then go to lunch." John's thought illustrates the cognitive process of \_\_\_\_\_.
- pattern recognition
  - memory
  - imagery
  - decision making

Answer: d

Section Ref: What Is Cognitive Psychology?

Difficulty: Easy

- 1-5. Suppose that several psychologists want to explore interpersonal interactions during adulthood. Which of the following topics would be most consistent with the cognitive approach?
- "How do early childhood experiences contribute to the development of love relationships during adulthood?"
  - "Can interpersonal attraction be influenced by classical conditioning?"
  - "When meeting someone for the first time, what attribute does a person perceive most quickly, gender or ethnicity?"
  - "Do people spend less time with depressed individuals, as opposed to nondepressed individuals?"

Answer: c

Section Ref: What Is Cognitive Psychology?

Difficulty: Medium

- 1-6. What does the introductory chapter conclude about the influence of cognitive approaches on other areas of psychology?
- a. Cognitive psychology has had very little influence on areas outside traditional experimental psychology.
  - b. Cognitive psychology has influenced experiments in some research-oriented areas of psychology, but it has not yet had an impact on applied areas.
  - c. Cognitive psychology has influenced disciplines that are concerned with the behavior of humans as individuals, but it has not yet influenced the areas of psychology concerned with social interactions.
  - d. Cognitive psychology has had an important impact on a variety of areas throughout psychology.

Answer: d

Section Ref: What Is Cognitive Psychology?

Difficulty: Medium

- 1-7. Chapter 1 of your Cognition textbook discusses the status of cognitive psychology. According to this discussion, the cognitive approach
- a. primarily emphasizes our unconscious thoughts.
  - b. can explain a major part of your daily experiences.
  - c. is prominent within social psychology, but it has not yet been applied to biological areas of psychology.
  - d. has had surprisingly little connection with clinical psychology.

Answer: b

Section Ref: What Is Cognitive Psychology?

Difficulty: Easy

- 1-8. According to the introductory chapter in your textbook, the influence of cognitive psychology
- a. has been relatively weak, both within psychology and in other disciplines.
  - b. has been limited primarily to areas related to education.
  - c. has not yet reached applied areas of psychology.
  - d. has extended to other disciplines, such as neurology.

Answer: d

Section Ref: What Is Cognitive Psychology?

Difficulty: Easy

- 1-9. Imagine that you are attending a lecture by a guest speaker who describes a theory and then says, “Let’s now look at the empirical evidence.” Which of the following would most likely be the speaker’s next sentence?
- a. “Other psychologists have objected to my approach on the following theoretical grounds.”
  - b. “We conducted an experiment to test this hypothesis.”
  - c. “The theorists who belonged to the empirical school rejected the behaviorist tradition, for the following reasons.”
  - d. “By combining both the cognitive approach and the psychodynamic approach, we can devise a new theoretical approach to the problem.”

Answer: b

Section Ref: Historical Perspective on the Field

Difficulty: Hard

- 1-10. Suppose that your professor tells you that you must locate a journal article about cognitive psychology that presents empirical evidence. You should look for an article that
- a. studies humans, rather than other animals.
  - b. emphasizes evidence collected in experiments.
  - c. provides a theoretical explanation for previous research.
  - d. uses at least two different statistical analyses.

Answer: b

Section Ref: Historical Perspective on the Field

Difficulty: Medium

- 1-11. The philosopher \_\_\_\_ can be called the first cognitive psychologist, because he examined topics such as memory and perception and emphasized the importance of empirical evidence.
- a. Plato
  - b. Sophocles
  - c. Aristotle
  - d. Descartes

Answer: c

Section Ref: Historical Perspective on the Field

Difficulty: Easy

- 1-12. In the introspection technique,
- a. people describe what they are thinking as they perform a task.
  - b. people report their daily experiences in an informal, unstructured fashion.
  - c. the experimenter observes how people respond to learning tasks.
  - d. emotional responses are emphasized, rather than a variety of thought processes.

Answer: a

Section Ref Historical Perspective on the Field

Difficulty: Easy

- 1-13. When researchers use the introspection technique,
- a. people report their sensations as accurately as possible.
  - b. people report their experiences in a spontaneous, unsystematic fashion.
  - c. the researchers observe how people respond to learning tasks.
  - d. the researchers encourage people to interpret their reactions to selected stimuli.

Answer: a

Section Ref: Historical Perspective on the Field

Difficulty: Medium

- 1-14. Your textbook discusses the early history of cognitive psychology. According to this discussion,
- a. Hermann Ebbinghaus opposed cognitive psychology because it did not pay enough attention to emotions.
  - b. Mary Whiton Calkins studied people's introspections about nonsense words.
  - c. William James suggested that our everyday cognitive processes are passive, rather than active.
  - d. Wilhelm Wundt emphasized that introspection could provide useful information, if participants were well trained.

Answer: d

Section Ref: Historical Perspective on the Field

Difficulty: Easy

- 1-15. The primary contribution of Hermann Ebbinghaus to current cognitive psychology was
- a. the emphasis on ecological validity.
  - b. the emphasis on research employing hundreds of subjects in each study.

- c. research about factors that might influence human memory.
- d. the notion of top-down processing.

Answer: c

Section Ref: Historical Perspective on the Field

Difficulty: Medium

- 1-16. Which of the following women was an early researcher in memory who reported the recency effect and also became the first female president of the American Psychological Association?
- a. Dorothea Dix
  - b. Leta Stetter Hollingworth
  - c. Mary Whiton Calkins
  - d. Margaret Floy Washburn

Answer: c

Section Ref: Historical Perspective on the Field

Difficulty: Easy

- 1-17. Chris just telephoned Roberta and listed eight items that they need for the afternoon picnic. Roberta didn't have a pencil, so she couldn't write them down. However, she remembers the last three items very well because of
- a. object permanence.
  - b. long-term memory.
  - c. an event-related potential.
  - d. the recency effect.

Answer: d

Section Ref: Historical Perspective on the Field

Difficulty: Medium

- 1-18. Based on the information in Chapter 1, how would you describe the approach of William James?
- a. He emphasized rigorous experimentation and carefully controlled research.
  - b. He asked research participants to report their sensations and perceptions as objectively as possible.
  - c. He emphasized the kinds of psychological experiences that people encounter in their everyday lives.

- d. He emphasized that we must look for the unconscious forces that underlie cognitive activities.

Answer: c

Section Ref: Historical Perspective on the Field

Difficulty: Hard

- 1-19. William James made his most important contributions to cognitive psychology in his work on

- a. problem-solving strategies.
- b. memory in everyday life.
- c. complex decision making.
- d. cognitive development in children.

Answer: b

Section Ref: Historical Perspective on the Field

Difficulty: Medium

- 1-20. In contrast to Hermann Ebbinghaus, William James was more likely to focus on

- a. well-controlled experiments.
- b. a behavioral approach to memory and language.
- c. people's everyday experiences.
- d. clear operational definitions.

Answer: c

Section Ref: Historical Perspective on the Field

Difficulty: Medium

- 1-21. Which statement about the history of cognition is correct?

- a. Behaviorists favored the introspection technique.
- b. William James emphasized that the human mind is active, rather than passive.
- c. Research in cognition thrived during the period when behaviorism was strongest.
- d. Behaviorists were influential in conducting research on problem solving.

Answer: b

Section Ref: Historical Perspective on the Field

Difficulty: Easy

- 1-22. Chapter 1 presents some information about the history of cognition. According to this discussion
- a. the issue of how humans acquire knowledge was not considered until about 80 years ago.
  - b. the birthday of scientific psychology is usually traced to the first studies of John B. Watson.
  - c. behaviorism is an approach that relies on objective, observable reactions.
  - d. behaviorists have been primarily interested in studying images and thought processes.

Answer: c

Section Ref: Historical Perspective on the Field

Difficulty: Easy

- 1-23. Which of the following movements emphasized the human tendency to actively organize what we see?
- a. Behaviorism
  - b. Gestalt psychology
  - c. Empiricism
  - d. Clinical psychology

Answer: b

Section Ref: Historical Perspective on the Field

Difficulty: Easy

- 1-24. Which of the following early approaches to psychology developed the idea of insight when people solve problems?
- a. Introspectionism
  - b. The Gestalt approach
  - c. Behaviorism
  - d. Ebbinghaus and his followers

Answer: b

Section Ref: Historical Perspective on the Field

Difficulty: Easy

- 1-25. According to the discussion in Chapter 1, behaviorism places the most emphasis on
- a. interpersonal relationships.

- b. observable activities.
- c. unconscious emotions.
- d. mental processes.

Answer: b

Section Ref: Historical Perspective on the Field

Difficulty: Medium

- 1-26. With practice and reinforcement, a rat learns to navigate a maze. A behaviorist would operationalize the rat's "learning" as
- a. the decrease in the rate of errors, over time.
  - b. the rat's memory for the correct sequence of right and left turns.
  - c. the rat's internal "map" of the maze.
  - d. the rat's decreasing reliance on cheese as a reinforcer.

Answer: a

Section Ref: Historical Perspective on the Field

Difficulty: Medium

- 1-27. Which of the following research topics would be most likely to interest a behaviorist?
- a. The effect of parents' marital satisfaction on children's nightmares.
  - b. The effect of praise on children's running speed.
  - c. Individual differences in verbal ability.
  - d. The relationship between the true size of an object and its size as represented in a mental image.

Answer: b

Section Ref: Historical Perspective on the Field

Difficulty: Medium

- 1-28. Which of the following students provides the most accurate summary of the behaviorists' contributions to cognitive psychology?
- a. Anton: "The behaviorists refined the introspection technique through the use of careful interview techniques."
  - b. Elena: "The most important contributions of the behaviorists were related to research methodology."
  - c. Sarah: "Behaviorists clarified the cognitive abilities of infants and children, especially in their research on object permanence."

- d. Jason: “Behaviorists’ contributions to cognitive psychology focused on theoretical models, rather than on empirical results.”

Answer: b

Section Ref: What Is Cognitive Psychology?

Difficulty: Hard

1-29. An operational definition is most likely to

- a. describe precisely how the researchers will measure a particular concept.
- b. examine the correlation between two well-established variables.
- c. point out alternative explanations for the results of a study.
- d. adopt an information-processing approach, rather than a behaviorist approach.

Answer: a

Section Ref: Historical Perspective on the Field

Difficulty: Medium

1-30. Which of the following perspectives was most likely to emphasize the importance of a precise operational definition?

- a. William James’s work on the tip-of-the-tongue effect
- b. Wilhelm Wundt’s introspection approach
- c. The behaviorists’ research with animals
- d. The gestalt approach to perception

Answer: c

Section Ref: Historical Perspective on the Field

Difficulty: Medium

1-31. Behaviorists and cognitive psychologists are most likely to agree on which of the following points?

- a. Researchers need to have detailed definitions about how a concept will be measured.
- b. Researchers must emphasize the external stimuli in the environment.
- c. Theorists must try to explain higher mental processes in terms of mental events.
- d. Most thought processes can be explained in terms of people’s observable responses to stimuli.

Answer: a

Section Ref: Historical Perspective on the Field

Difficulty: Medium

- 1-32. A psychologist who favors the Gestalt approach would be most likely to criticize the fact that behaviorists
- a. ignore the context in which a behavior occurs.
  - b. overemphasize introspection.
  - c. are not sufficiently rigorous in designing their psychological research.
  - d. pay too much attention to insight.

Answer: a

Section Ref: Historical Perspective on the Field

Difficulty: Medium

- 1-33. During the 1950s, many psychologists were becoming discouraged with behaviorism, and cognitive psychology began to emerge. A major reason they were disappointed with behaviorism is that
- a. it considered only psychological processes that are clearly observable.
  - b. it paid too much attention to individual differences.
  - c. it failed to develop objective methods of measuring behavior.
  - d. it focused too much on emotional factors, and not enough on observable behaviors.

Answer: a

Section Ref: Historical Perspective on the Field

Difficulty: Medium

- 1-34. Which of the following students provides the best summary of the decline of behaviorism and the rising popularity of the cognitive approach?
- a. Sarah: "Psychologists began to realize that the behaviorists only emphasized behavior, and they admired how the cognitive approach emphasized people's emotional experiences."
  - b. Harlan: "Many psychologists favored the cognitive approach, because the behaviorist approach could not account for complex thought processes."
  - c. Ilia: "Most psychologists thought that the behaviorist approach was too heavily influenced by its early gestalt principles."
  - d. Savita: "In general, psychologists realized that the cognitive approach was better than the behaviorist approach in explaining individual differences."

Answer: b

Section Ref: Historical Perspective on the Field  
Difficulty: Hard

- 1-35. Cognitive psychologists believe that behaviorists cannot explain human language because
- behaviorists place too much emphasis on genetic explanations.
  - behaviorists cannot provide appropriate explanations because their research rarely uses operational definitions.
  - language has a complex structure that cannot be explained in terms of stimuli and responses.
  - language is acquired in humans through adults' careful teaching of young children.

Answer: c

Section Ref: Historical Perspective on the Field  
Difficulty: Medium

- 1-36. During the late 1960s, psychologists began to favor the cognitive approach, because they felt that the behaviorist approach
- emphasized unobservable cognitive processes.
  - overused Wundt's technique of introspection.
  - placed too much emphasis on concepts such as reinforcement and observable responses.
  - devoted too much research to the organization of memory.

Answer: c

Section Ref: Historical Perspective on the Field  
Difficulty: Medium

- 1-37. According to the discussion about the rise of cognitive psychology,
- enthusiasm for behaviorism decreased because it was difficult to explain complex human behavior using only the concepts from learning theory.
  - Piaget's research on children's thinking was actually ignored until cognitive psychology was well established in the 1970s.
  - modern linguistics favors behaviorism rather than cognitive approaches.
  - behavioral approaches to human memory are still more widely accepted than cognitive approaches.

Answer: a

Section Ref: Historical Perspective on the Field  
Difficulty: Medium

- 1-38. Which of the following people was known for seeing human memory as an active, constructive process in which we interpret and transform the information that we encounter?
- a. Bartlett
  - b. Watson
  - c. James
  - d. Wundt

Answer: a

Section Ref: Historical Perspective on the Field

Difficulty: Easy

- 1-39. If a study has high ecological validity, then the most likely conclusion is that
- a. it had a large number of participants.
  - b. it was conducted with animals, taking proper cautions about their safety.
  - c. the results could be applied in real-world situations.
  - d. the study was conducted by researchers with a behaviorist approach.

Answer: c

Section Ref: Historical Perspective on the Field

Difficulty: Medium

- 1-40. Which of the following titles of research projects would have the most ecological validity?
- a. "Planning strategies used in grocery-store shopping"
  - b. "Recall for nonsense words after varying delay periods"
  - c. "Children's ability to perform abstract reasoning tasks"
  - d. "Perception of the loudness of isolated computer-generated tones"

Answer: a

Section Ref: Historical Perspective on the Field

Difficulty: Medium

1-41. Cognitive science is

- a. an earlier version of modern behaviorism.
- b. a new approach for treating psychological disorders.
- c. an interdisciplinary field that explores questions about the mind.
- d. the application of principles from cognitive psychology to industry and other real-world settings.

Answer: c

Section Ref: Mind, Brain, and Behavior

Difficulty: Easy

1-42. Which of the following interests is shared by researchers within the discipline of cognitive science?

- a. Internal representations of the world
- b. Individual differences
- c. The relationship between emotions and thought
- d. An emphasis on problem solving

Answer: a

Section Ref: Mind, Brain, and Behavior

Difficulty: Medium

1-43. An important feature of cognitive science is that it emphasizes

- a. individual differences in cognition.
- b. an interdisciplinary approach.
- c. that all mental processes should be explained in biological terms.
- d. that researchers should focus on personality characteristics.

Answer: b

Section Ref: Mind, Brain, and Behavior

Difficulty: Easy

1-44. Based on the discussion of artificial intelligence in Chapter 1,

- a. both computers and humans have limited capacities.
- b. the psychologists who developed the information-processing approach emphasized that human cognitive processes are very different from artificial-intelligence models.
- c. a flowchart cannot be used in studying either computers or human cognitive processes.

- d. the computer metaphor has only limited usefulness.

Answer: a

Section Ref: Mind, Brain, and Behavior

Difficulty: Hard

1-45. Researchers in artificial intelligence emphasize that

- a. both the human brain and the computer can compare symbols and make choices, based on that comparison.
- b. human memory distinguishes between short-term memory and long-term memory, whereas computer models have no comparable distinction.
- c. neither the human mind nor the computer can compare symbols.
- d. a flowchart designed in connection with a computer is very different from human mental processes.

Answer: a

Section Ref: Mind, Brain, and Behavior

Difficulty: Medium

1-46. The term “pure AI” refers to

- a. research that considers human limitations in cognitive processing.
- b. an approach that attempts to accomplish a task as efficiently as possible.
- c. an emphasis on the ecological validity of research in cognitive psychology.
- d. a technique used in neuroscience that records the responses from a single cell in the brain.

Answer: b

Section Ref: Mind, Brain, and Behavior

Difficulty: Easy

1-47. According to your textbook, the artificial intelligence (AI) approach

- a. creates computer models that demonstrate intelligent behavior.
- b. emphasizes that humans possess a central processing mechanism that has unlimited capacity.
- c. is currently too vague and nonspecific to be tested.
- d. focuses on the development of cognitive abilities during childhood.

Answer: a

Section Ref: Mind, Brain, and Behavior

Difficulty: Medium

1-48. Some researchers believe that the human brain works like a complex, sophisticated machine. These researchers would favor

- a. the Gestalt approach.
- b. the analogy approach.
- c. the computer metaphor.
- d. the lesion approach.

Answer: c

Section Ref: Mind, Brain, and Behavior

Difficulty: Medium

1-49. According to Chapter 1 in your textbook, the computer-simulation method

- a. attempts to explain how a computer can perform a cognitive task as quickly as possible.
- b. is not yet sophisticated enough to perform any cognitive task as efficiently as humans can.
- c. typically produces an idealized version of how humans should perform a cognitive task, rather than how they actually do perform it.
- d. tries to create a program that performs a cognitive task in the same way that humans would perform it.

Answer: d

Section Ref: Mind, Brain, and Behavior

Difficulty: Medium

1-50. Suppose that several cognitive scientists are trying to program a computer so that it solves a particular problem in the same way a human does, taking into account that a human may make a few false starts before successfully solving the problem. This approach is called

- a. the neuroscience approach.
- b. behavioral modeling.
- c. the “Pure AI” approach.
- d. computer simulation.

Answer: d

Section Ref: Mind, Brain, and Behavior

Difficulty: Medium

1-51. The information-processing approach

- a. grew directly out of behaviorism.
- b. was facilitated by the early research in computer science.
- c. was inspired by linguists, such as Noam Chomsky, who provided extensive analyses about the way that sentences are coded in memory.
- d. is primarily used to explain cognitive development.

Answer: b

Section Ref: Mind, Brain, and Behavior

Difficulty: Medium

1-52. According to the information-processing approach,

- a. we process all information at either a deep or shallow level of processing.
- b. introspection is the most important research technique; with the proper controls, introspection can be very reliable.
- c. decision-making is the primary component of all cognitive processes.
- d. mental processes can be interpreted as a flow of information, somewhat similar to the way a computer operates.

Answer: d

Section Ref: Mind, Brain, and Behavior

Difficulty: Medium

1-53. A cognitive psychologist who analyzes a cognitive task in terms of a series of stages—like the way a computer operates—is using which of the following approaches?

- a. The information-processing approach
- b. The introspection approach
- c. The gestalt approach
- d. The parallel distributed processing approach

Answer: a

Section Ref: Mind, Brain, and Behavior

Difficulty: Medium

1-54. Information processing models assume that

- a. information from your senses about stimuli in the outside world can be compared to inputting information on a computer keyboard.
- b. Information from your senses is processed and recognized instantaneously.
- c. A stimulus does not need to be interpreted or identified before a decision is made about how to respond to the stimulus.
- d. subsystems based on algorithms are not necessary to model cognitive processes.

Answer: a

Section Ref: Mind, Brain, and Behavior

Difficulty: Medium

1-55. Which of the following students provides the best summary about the current status of the information-processing approach?

- a. Alena: “The information-processing approach is now more popular than the parallel distributed processing approach, because most cognitive tasks require serial processing.”
- b. Magda: “The information-processing approach has declined in popularity during recent years, because those models are not complex enough to explain many cognitive activities.”
- c. Dave: “The information-processing model is still extremely popular, and it remains at the cutting edge of cognitive psychology.”
- d. Samuel: “The most important model is one in which the information-processing approach has been blended with the gestalt approach, in order to explain higher mental processes.”

Answer: b

Section Ref: Mind, Brain, and Behavior

Difficulty: Hard

1-56. Why are cognitive psychologists less interested in the information-processing approach than they were in earlier years?

- a. They now realize that the complexity of human thinking requires more sophisticated models.
- b. They acknowledge that behaviorist principles can explain memory more effectively.
- c. They argue that the model does not place enough emphasis on serial processing.
- d. They point out that the model works only for visual information, rather than for auditory information.

Answer: a

Section Ref: Mind, Brain, and Behavior

Difficulty: Medium

- 1-57. One of the characteristics of the human brain that is especially important in the connectionist approach is that the brain
- a. is divided into several distinct lobes.
  - b. has two hemispheres that are somewhat similar to each other.
  - c. has networks that link together many neuron-like units.
  - d. has a very specific location in which it performs each cognitive activity.

Answer: c

Section Ref: Mind, Brain, and Behavior

Difficulty: Medium

- 1-58. An important characteristic of the connectionist approach to cognition is that
- a. it handles information by processing it one step at a time.
  - b. it first analyzes an object's shape, then its size, and finally its color.
  - c. it can perform many operations at the same time.
  - d. it predicts that humans perform cognitive tasks much more accurately than they actually do.

Answer: c

Section Ref: Mind, Brain, and Behavior

Difficulty: Medium

- 1-59. Suppose that you look up from this exam, and you immediately perceive a scene that includes students, desks, and classroom walls. In order to perceive it quickly, you are probably using
- a. serial processing.
  - b. parallel processing.
  - c. ecological validity.
  - d. metacognition.

Answer: b

Section Ref: Mind, Brain, and Behavior

Difficulty: Medium

- 1-60. The perspective called the “parallel distributed processing approach” includes the word “parallel” in its name because:
- a. the human brain can process several items simultaneously.
  - b. both the human brain and the PDP models have parallel weaknesses in terms of processing speed.
  - c. an item stored in your brain is registered in just one very small location.
  - d. the neural network in your brain is arranged in parallel columns.

Answer: a

Section Ref: Mind, Brain, and Behavior

Difficulty: Medium

- 1-61. An important difference between the classical AI approach and the connectionist approach is that the classical AI approach
- a. is designed to resemble the human brain.
  - b. proceeds one step at a time.
  - c. is more successful in explaining rapid cognitive processes.
  - d. emphasizes motivational goals as well as cognitive tasks.

Answer: b

Section Ref: Mind, Brain, and Behavior

Difficulty: Medium

- 1-62. An important characteristic of the connectionist approach is that
- a. the neural activity that corresponds to a particular cognitive activity is typically limited to a single small location.
  - b. many cognitive activities rely on serial operations.
  - c. it is flexible enough to explain many cognitive skills.
  - d. it can only explain higher mental processes, such as decision making.

Answer: c

Section Ref: Mind, Brain, and Behavior

Difficulty: Medium

- 1-63. Suppose that you meet a professor who is trying to determine what portions of the brain are involved in trying to recall a word that is on the tip of your tongue. This person is likely to use the approach of

- a. artificial intelligence.
- b. cognitive neuroscience.
- c. gestalt psychology
- d. behaviorism.

Answer: b

Section Ref: Mind, Brain, and Behavior

Difficulty: Medium

- 1-64. According to the first chapter in your textbook, research in cognitive neuroscience
- a. shows that most cognitive processes can be traced to a specific location in the brain.
  - b. often obtains brain images while people are working on a cognitive task.
  - c. is currently most likely to explore cognitive processes by using the brain-lesion method.
  - d. has declined in its popularity during the past 10–15 years.

Answer: b

Section Ref: Mind, Brain, and Behavior

Difficulty: Medium

- 1-65. A research team is studying which parts of the brain are active when a participant looks at a photograph of a person, and tries to judge how intelligent that person is. This kind of study is an example of
- a. the artificial intelligence approach.
  - b. the information-processing approach.
  - c. social cognitive neuroscience.
  - d. computer simulation

Answer: c

Section Ref: Mind, Brain, and Behavior

Difficulty: Medium

- 1-66. Research on people with brain lesions
- a. usually focuses on the way that isolated nerve cells function.
  - b. emphasizes that most people who have had strokes won't ever recover the ability to perform a cognitive task.
  - c. is a relatively recent neuroscience approach to cognition.

- d. studies people who cannot perform specific cognitive tasks after they have had a stroke, tumor, or accident.

Answer: d

Section Ref: Mind, Brain, and Behavior

Difficulty: Medium

- 1-67. Some cognitive neuroscientists study brain lesions to learn more about brain functions. However, a major problem with this technique is that

- a. the brain damage may extend into several areas of the brain.
- b. this technique is low in ecological validity.
- c. it requires using a radioactive chemical, which may be dangerous.
- d. it cannot be used in studying humans or other primates.

Answer: a

Section Ref: Mind, Brain, and Behavior

Difficulty: Medium

- 1-68. When neuroscientists use PET scans (positron emission tomography),

- a. they assess the regions of the brain in which blood flow increases while a person is performing a task.
- b. they record the neural impulses from one neuron in the human brain.
- c. they stimulate a brain region in a patient who recently had a stroke or tumor.
- d. they place electrodes on a person's scalp.

Answer: a

Section Ref: Mind, Brain, and Behavior

Difficulty: Medium

- 1-69. According to the discussion of cognitive neuroscience, the PET-scan technique

- a. is too dangerous to use with human participants.
- b. is currently used when researchers want to test memory; however, it is not adaptable for other cognitive processes.
- c. can measure human cognitive processes that are completed within one-tenth of a second.
- d. measures blood flow in the brain.

Answer: d

Section Ref: Mind, Brain, and Behavior

Difficulty: Medium

- 1-70. Which of the following students provides the best understanding of the PET scan technique?
- a. Prinsetta: "PET scans record fluctuations in the brain activity that are completed within a fraction of a second."
  - b. Lisa: "Unfortunately, the PET scan can only be used for someone who has a brain lesion."
  - c. Jeff: "A PET scan is basically a very fast version of the event-related potential."
  - d. Jamie: "The PET scan creates an image based on a chemical that travels through the bloodstream."

Answer: d

Section Ref: Mind, Brain, and Behavior

Difficulty: Hard

- 1-71. In contrast to a PET scan, the fMRI technique
- a. requires an injection of a radioactive chemical.
  - b. provides more precise information when measuring a series of events in the brain.
  - c. is more accurate in determining what a person is thinking, for instance, whether the thoughts are pleasant or unpleasant.
  - d. involves placing electrodes on a person's scalp.

Answer: b

Section Ref: Mind, Brain, and Behavior

Difficulty: Medium

- 1-72. How does the functional Magnetic Resonance Imaging technique (fMRI) compare with other imaging techniques?
- a. It requires more processing time than PET scans, so it is more widely available.
  - b. It is more effective than the PET scan in measuring brain activity that occurs rapidly.
  - c. It does not provide precise information about the timing of various brain activities.
  - d. It produces images that are roughly comparable to the ERP technique.

Answer: b

Section Ref: Mind, Brain, and Behavior

Difficulty: Medium

- 1-73. A researcher wants to study how people's attention shifts when they see a visual stimulus in an unexpected portion of a screen that they are viewing; this attention shift occurs in just a fraction of a second. Which of the following techniques is this researcher most likely to use?
- a. The neural-network approach
  - b. A positron emission tomography (PET) scan
  - c. The functional magnetic resonance imaging technique (fMRI)
  - d. The event-related potential technique (ERP)

Answer: d

Section Ref: Mind, Brain, and Behavior

Difficulty: Hard

- 1-74. Imagine that some researchers are trying to design a computer-simulation model for an arithmetic task. They would be most likely to
- a. begin by using the single-cell recording technique, and then gradually shift to the fMRI technique.
  - b. design a system that solves each arithmetic problem as quickly as possible.
  - c. examine the way people's strategies change as they become more familiar with the task.
  - d. create a system that uses a problem-solving technique that is similar to the way humans would solve the problem.

Answer: d

Section Ref: Mind, Brain, and Behavior

Difficulty: Medium

- 1-75. Suppose that you want to see whether the human brain responds differently when a person reads a pleasant word, rather than an unpleasant word. Which of the following neuroscience techniques would provide the most useful information about processing these two kinds of words?
- a. The event-related potential (ERP) technique
  - b. The connectionist approach
  - c. The brain-lesion technique
  - d. A positron emission tomography (PET) scan

Answer: a

Section Ref: Mind, Brain, and Behavior

Difficulty: Medium

- 1-76. A neuroscience technique that provides time-course information about the processing of stimuli, plus coarse-grained information about the location of neural tissue that is involved in this processing, is called
- a. the event-related potential (ERP) technique
  - b. magnetoencephalography (MEG)
  - c. the brain-lesion technique
  - d. positron emission tomography (PET) scan

Answer: b

Section Ref: Mind, Brain, and Behavior

Difficulty: Medium

- 1-77. According to Chapter 1's introduction to the chapters in your textbook, perceptual processes
- a. use previous knowledge in order to interpret the stimuli that are registered by our senses.
  - b. are primarily concerned with concept formation.
  - c. include pattern recognition, but not attention.
  - d. are primarily explained by behaviorist principles.

Answer: a

Section Ref: Textbook Overview

Difficulty: Medium

- 1-78. Metacognition refers to
- a. your thoughts about your cognitive processes.
  - b. a technique that records brief fluctuations in the brain's electrical activity.
  - c. the application of cognitive psychology in everyday, naturalistic situations.
  - d. the use of computers to model human cognitive activity.

Answer: a

Section Ref: Textbook Overview

Difficulty: Easy

1-79. Which of the following is the best example of a schema?

- a. your knowledge of the last 10 winners of the “Best Picture” Academy Award
- b. Your tendency to read familiar words more quickly than unfamiliar words
- c. Your understanding that the concept “dentist’s office” includes a waiting room and a receptionist, but not video games
- d. Your ability to reach for your car’s turn signal on the left side of the steering wheel, even if you could not verbally describe where it is located

Answer: c

Section Ref: Textbook Overview

Difficulty: Medium

1-80. One component of your general knowledge focuses on semantic memory. Which of the following would be an example of semantic memory?

- a. Your ability to create a mental image
- b. Your ability to add several three-digit numbers together
- c. A strategy you use to memorize important material for a test
- d. Your knowledge that the word “bear” is similar to the word “lion”

Answer: d

Section Ref: Textbook Overview

Difficulty: Medium

1-81. Suppose that you hear about a research project in linguistics that is exploring the topic called discourse. Which of the following would be the most likely topic for this research?

- a. “How do students pronounce individual letters within a word?”
- b. “Can students recognize the grammatical category of words?”
- c. “Are students aware of the past tense of verbs?”
- d. “What are students’ ideas about how a story should end?”

Answer: d

Section Ref: Textbook Overview

Difficulty: Medium

1-82. According to the themes of your textbook,

- a. our cognitive processes typically operate independently of one another.

- b. our cognitive processes usually occur automatically.
- c. our cognitive processes are quite accurate; our errors can often be traced to strategies that are useful in other situations.
- d. we react to negative information more efficiently than we react to positive information.

Answer: c

Section Ref: Textbook Overview

Difficulty: Easy

1-83. According to the discussion of the themes of the textbook,

- a. negative information is consistently easier to process than positive information, because it is more startling.
- b. our cognitive processes are interrelated with one another.
- c. our higher mental processes generally operate independently of the more basic mental processes.
- d. in general, our cognitive processes are not very accurate.

Answer: b

Section Ref: Textbook Overview

Difficulty: Medium

1-84. Suppose that you attend a lecture on the bottom-up processes involved in speech perception. The lecturer is likely to emphasize

- a. how the listener's auditory system registers and transmits information about the speech sounds.
- b. the listener's familiarity with the language.
- c. the listener's knowledge about grammar.
- d. the listener's expectations about what the speaker will say.

Answer: a

Section Ref: Textbook Overview

Difficulty: Medium

1-85. Chapter 1 of your textbook ends with a discussion about the five themes of this book. According to this discussion,

- a. cognition is generally not very accurate.
- b. cognition typically emphasizes both top-down and bottom-up processing.

- c. children typically emphasize top-down processing, but adults typically emphasize bottom-up processing.
- d. cognition is typically more accurate for negative information than for positive information.

Answer: b

Section Ref: Textbook Overview

Difficulty: Medium

1-86. Which of the following students provides the most accurate interpretation of one of the themes of the textbook?

- a. Daquan: "In general, our cognitive processes may operate quickly, but we make numerous errors."
- b. Jessica: "In general, our cognitive processes tend to be passive, unless we make a special effort."
- c. Sam: "We are typically more accurate in processing negative information, rather than positive information."
- d. Sophie: "Many cognitive processes emphasize both top-down processing and bottom-up processing."

Answer: d

Section Ref: Textbook Overview

Difficulty: Medium

1-87. Prior to 1995, cognitive psychologists tended to focus strongly on understanding

- a. why certain individuals perform better or worse on a particular task
- b. how cognitive processes change over time
- c. how the "average" person performs on cognitive tasks
- d. why depressed individuals underperform relative to nondepressed individuals

Answer: c

Section Ref: Textbook Overview

Difficulty: Easy