

KEY

Barron's

Learning

PRACTICE QUESTIONS

Directions: Each of the questions or incomplete statements below is followed by five suggested answers or completions. Select the one that is best in each case.

1. Just before something scary happens in a horror film, they often play scary-sounding music. When I hear the music, I tense up in anticipation of the scary event. In this situation, the music serves as a(n)
 - (A) US.
 - (B) CS.**
 - (C) UR.
 - (D) CR.
 - (E) NR.

2. Try as you might, you are unable to teach your dog to do a somersault. He will roll around on the ground, but he refuses to execute the gymnastic move you desire because of
 - (A) equipotentiality.
 - (B) preparedness.**
 - (C) instinctive drift.**
 - (D) chaining.
 - (E) shaping.

3. Which of the following is an example of a generalized reinforcer?
 - (A) chocolate cake
 - (B) water
 - (C) money**
 - (D) applause
 - (E) high grades

4. In teaching your cat to jump through a hoop, which reinforcement schedule would facilitate the most rapid learning?
 - (A) continuous**
 - (B) fixed ratio
 - (C) variable ratio
 - (D) fixed interval
 - (E) variable interval

5. The classical conditioning training procedure in which the US is presented before the CS is known as
 - (A) backward conditioning.**
 - (B) aversive conditioning.
 - (C) simultaneous conditioning.
 - (D) delayed conditioning.
 - (E) trace conditioning.

→
Food
before
the bell
(mostly
reflective)

6. Tina likes to play with slugs, but she can find them by the shed only after it rains. On what kind of reinforcement schedule is Tina's slug hunting?

- (A) continuous
- (B) fixed-interval
- (C) fixed-ratio
- (D) variable-interval
- (E) variable-ratio

7. Just before the doors of the elevator close, Lola, a coworker you despise, enters the elevator. You immediately leave, mumbling about having forgotten something. Your behavior results in

- (A) positive reinforcement.
- (B) a secondary reinforcer.
- (C) punishment.
- (D) negative reinforcement.
- (E) omission training.

*Lola → aversive stimulus
B ↑*

8. Which of the following phenomena is illustrated by Tolman's study in which rats suddenly evidenced that they had learned to get through a maze once a reward was presented?

- (A) insight learning
- (B) instrumental learning
- (C) latent learning
- (D) spontaneous recovery
- (E) classical conditioning

reward hidden until it was made available

9. Many psychologists believe that children of parents who beat them are likely to beat their own children. One common explanation for this phenomenon is

- (A) modeling.
- (B) latent learning.
- (C) abstract learning.
- (D) instrumental learning.
- (E) classical conditioning.

observational learning

10. When Tito was young, his parents decided to give him a quarter every day he made his bed. Tito started to make his siblings' beds also and help with other chores. Behaviorists would say that Tito was experiencing

- (A) internal motivation.
- (B) spontaneous recovery.
- (C) acquisition.
- (D) generalization.
- (E) discrimination.

11. A rat evidencing abstract learning might learn
- (A) to clean and feed itself by watching its mother perform these activities.
 - (B) to associate its handler's presence with feeding time.
 - (C) to press a bar when a light is on but not when its cage is dark.
 - (D) the layout of a maze without hurrying to get to the end.
 - (E) to press a lever when he sees pictures of dogs but not cats.
-
12. With which statement would B. F. Skinner most likely agree?
- (A) Pavlov's dog learned to expect that food would follow the bell.
 - (B) Baby Albert thought the white rat meant the loud noise would sound.
 - (C) All learning is observable.
 - (D) Pigeons peck disks knowing that they will receive food.
 - (E) Cognition plays an important role in learning.
-
13. Before his parents will read him a bedtime story, Charley has to brush his teeth, put on his pajamas, kiss his grandmother good night, and put away his toys. This example illustrates
- (A) shaping.
 - (B) acquisition.
 - (C) generalization.
 - (D) chaining.
 - (E) a token economy.
- + — + — + — + — + = reward
-
14. Which of the following is an example of positive reinforcement?
- (A) buying a child a video game after she throws a tantrum
 - (B) going inside to escape a thunderstorm
 - (C) assigning a student detention for fighting
 - (D) getting a cavity filled at the dentist to halt a toothache
 - (E) depriving a prison inmate of sleep
- B⁺ +
-
15. Lily keeps poking Jared in Mr. Clayton's third-grade class. Mr. Clayton tells Jared to ignore Lily. Mr. Clayton is hoping that ignoring Lily's behavior will
- (A) punish her.
 - (B) extinguish the behavior.
 - (C) negatively reinforce the behavior.
 - (D) cause Lily to generalize.
 - (E) make the behavior latent.

They found that rats developed conditioned taste aversion as the Garcia effect. Similarly, cancer patients undergoing chemotherapy develop loss of appetite. They also found that there are biological constraints on the ease with which particular stimuli can be associated with particular responses. Rats have a tendency to associate nausea and dizziness with tastes, but not with sights and sounds. Rats also tend to associate pain with sights and sounds, but not with tastes.

Instinctive Drift

Sometimes, operantly conditioned animals failed to behave as expected. Wild rats already conditioned in Skinner boxes sometimes reverted to scratching and biting the lever. In different experiments, Keller and Marian Breland found that stimuli that represented food were treated as actual food by chickens and raccoons. The Brelands attributed this to the strong evolutionary history of the animals that overrode conditioning. They called this **instinctive drift**—a conditioned response that drifts back toward the natural (instinctive) behavior of the organism. Wild animal trainers must stay vigilant even after training their animals because the animals may revert to dangerous behaviors.

5 Steps to Learning

Review Questions

Directions: For each item, choose the letter of the choice that best completes the statement or answers the question.

- Once Pavlov's dogs learned to salivate to the sound of a tuning fork, the tuning fork was a(n)
 - unconditioned stimulus
 - neutral stimulus
 - conditioned stimulus
 - unconditioned response
 - conditioned response
- Shaping is
 - a pattern of responses that must be made before classical conditioning is completed
 - rewarding behaviors that get closer and closer to the desired goal behavior
 - completing a set of behaviors in succession before a reward is given
 - giving you chocolate pudding to increase the likelihood you will eat more carrots
 - inhibition of new learning by previous learning
- John loves to fish. He puts his line in the water and leaves it there until he feels a tug. On what reinforcement schedule is he rewarded?
 - continuous reinforcement
 - fixed ratio
 - fixed interval
 - variable ratio
 - variable interval

time - when, not # of times
- Chimpanzees given tokens for performing tricks were able to put the tokens in vending machines to get grapes. The tokens acted as
 - primary reinforcers
 - classical conditioning
 - secondary reinforcers
 - negative reinforcers
 - unconditioned reinforcers

connected to grapes
- Which of the following best reflects negative reinforcement?
 - Teresa is scolded when she runs through the house yelling.
 - Lina is not allowed to watch television until after she has finished her homework.
 - Greg changes his math class so he doesn't have to see his old girlfriend.
 - Aditya is praised for having the best essay in the class.
 - Alex takes the wrong medicine and gets violently ill afterwards.

takes away something aversive

some
 Watson and Rayner's classical conditioning of "Little Albert" was helpful in explaining that

- (A) ~~no~~ conditioned stimuli do not generalize
- (B) ~~human emotions such as fear are subject to classical conditioning~~
- (C) drug dependency is subject to classical as well as operant conditioning
- (D) small children are not as easily conditioned as older children
- (E) fear of rats and rabbits are innate responses previously undiscovered

Jamel got very sick after eating some mushrooms on a pizza at his friend's house. He didn't know that he had a stomach virus at the time, blamed his illness on the mushrooms, and refused to eat them again. Which of the following is the unconditioned stimulus for his taste aversion to mushrooms?

- (A) pizza
- (B) ~~stomach virus~~
- (C) mushrooms — C
- (D) headache
- (E) aversion to mushrooms

8. If a previous experience has given your pet the expectancy that nothing it does will prevent an aversive stimulus from occurring, it will likely

- (A) be motivated to seek comfort from you
- (B) ~~experience learned helplessness~~
- (C) model the behavior of other pets in hopes of avoiding it
- (D) seek out challenges like this in the future to disprove the expectation
- (E) engage in random behaviors until one is successful in removing the stimulus

9. While readying to take a free-throw shot, you suddenly arrive at the answer to a chemistry problem you'd been working on several hours before. This is an example of

- (A) insight
- (B) backward conditioning
- (C) latent learning
- (D) discrimination
- (E) the Premack Principle

10. If the trainer conditions the pigeon to peck at a red circle and then only gives him a reward if he pecks at the green circle when both a red and green circle appear, the pigeon is demonstrating

- (A) matching-to-sample generalization
- (B) ~~abstract learning~~
- (C) intrinsic motivation
- (D) insight
- (E) modeling

11. Latent learning is best described by which of the following?

- (A) innate responses of an organism preventing new learning and associations
- (B) ~~unconscious meaning that is attributed to new response patterns~~
- (C) response patterns that become extinguished gradually over time
- (D) delayed responses that occur when new stimuli are paired with familiar ones
- (E) learning that occurs in the absence of rewards

12. Rats were more likely to learn an aversion to bright lights and noise with water if they were associated with electric shocks rather than with flavors or poisoned food. This illustrates

- (A) insight
- (B) ~~preparedness~~ → Biological predisposition to learn behaviors related to survival
- (C) extinction
- (D) observational learning
- (E) generalization

13. Which of the following responses is NOT learned through operant conditioning?

- (A) a rat learning to press a bar to get food
- (B) dogs jumping over a hurdle to avoid electric shock
- (C) ~~fish swimming to the top of the tank when a light goes on~~
- (D) pigeons learning to turn in circles for a reward
- (E) studying hard for good grades on tests

14. Spontaneous recovery refers to the

- (A) reacquisition of a previously learned behavior
- (B) ~~reappearance of a previously extinguished CR after a rest period~~
- (C) return of a behavior after punishment has ended
- (D) tendency of newly acquired responses to be intermittent at first
- (E) organism's tendency to forget previously learned responses, but to relearn them more quickly during a second training period

Behaviors contrary to instincts are learned slowly or not at all

Biological predisposition to learn behaviors related to survival

11

Chapter 10 Drill

Preceptor
Review
Learning

See Chapter 19 for answers and explanations.

- After having been struck by a car, a dog now exhibits fear responses every time a car approaches. The dog also exhibits a fear response to the approach of a bus, a truck, a bicycle, and even a child's wagon. The dog has undergone a process of
 - stimulus discrimination
 - stimulus generalization**
 - spontaneous recovery
 - backward conditioning
 - differential reinforcement
- Which of the following would be an example of second-order conditioning?
 - A cat tastes a sour plant that makes it feel nauseated and will not approach that plant again.
 - A horse that is fed sugar cubes by a particular person salivates every time that person walks by.
 - A pigeon that has received food every time a red light is presented exhibits food-seeking behavior when a yellow light is presented.
 - A rabbit that has repeatedly seen a picture of a feared predator paired with a musical tone exhibits a fear response to the musical tone as well as to a flashed light alone that had been repeatedly paired with the tone.**
 - Wild rats instinctively avoid canine predators, but domesticated rats show little fear of the domesticated dogs they encounter, and may even join them in exploration or play.
- The reinforcement schedule that generally provides the most resistance to response extinction is
 - fixed-ratio
 - fixed-interval
 - variable-ratio**
 - variable-interval
 - continuous
- The importance of enrichment and stimulation of the brain during critical periods in development can be seen in all of the following EXCEPT
 - an increase in the number of neurons**
 - an increase in the number of connections between neurons
 - strengthening of already existing connections between neurons
 - an increase in the size of neurons
 - higher levels of neurotransmitters
- According to Albert Bandura, observational learning can occur even in the absence of
 - observed consequences of behavior**
 - direct attention to the behavior
 - retention of the observed behavior over time
 - ability to reproduce the behavior
 - motivation to reproduce the behavior at a later time
- Jay joins a social media website to lose weight, and he receives points based on the intensity of his daily exercise and praise from fellow users for each workout he logs on the website. This increases his exercise frequency and intensity. Eventually he stops logging onto the website, but continues to exercise with increased frequency. This is an example of
 - vicarious reinforcement
 - operant conditioning**
 - innate behavior
 - classical conditioning
 - observational learning

Bobo Doll!

Strive for a 5 Learning

Multiple-Choice Questions

1. In operant conditioning, removal of an aversive stimulus causes the behavior to
(A) decrease
(B) increase
(C) stay the same
(D) increase, then decrease
(E) decrease, then increase
2. In the Little Albert experiment conducted by John B. Watson, the white rat, prior to conditioning, served as what?
(A) Neutral stimulus (NS)
(B) Unconditioned stimulus (UCS)
(C) Unconditioned response (UCR)
(D) Conditioned stimulus (CS)
(E) Conditioned response (CR)
3. Jake is training his dog to sit on command. Jake gives his dog a treat every time the dog sits. Which type of reinforcement schedule is Jake displaying?
(A) Partial reinforcement
(B) Continuous reinforcement
(C) Fixed-interval reinforcement
(D) Variable-interval reinforcement
(E) Variable-ratio reinforcement
4. Lian has an intense phobia of birds. Her psychologist believes that in order to alleviate her phobia, Lian must be placed in a room where she is surrounded by birds. Lian's therapist believes in the effectiveness of what type of phobia-reduction technique?
(A) Systematic desensitization
(B) Counterconditioning
(C) Flooding
(D) Second-order conditioning
(E) Stimulus generalization
5. Students in Mr. Winn's class receive a gold star each time they answer a question correctly. After a student receives ten gold stars, he or she earns a pencil. Mr. Winn is using an operant conditioning technique known as
(A) counterconditioning
(B) flooding
(C) aversive conditioning
(D) token economy
(E) observational learning
6. Julie works at a shoe factory and is paid based on the number of shoes she produces in a day. This is an example of which type of schedule of reinforcement?
(A) Fixed-interval
(B) Fixed-ratio
(C) Variable-interval
(D) Variable-ratio
(E) Sequential reinforcement

7. Each time Bailee walks past her brother's room he squirts her with water. Because she does not like being squirted with water, she avoids walking past her brother's room whenever he is home. Bailee is displaying what type of learning behavior?
- (A) Escape learning
 - (B) Avoidance learning
 - (C) Latent learning
 - (D) Observational learning
 - (E) Extinction learning
8. Which of the following is considered a primary reinforcer?
- (A) Receiving \$20 for every A on a report card
 - (B) Receiving praise for a job well done
 - (C) Inventing a new product
 - (D) Drinking a glass of water
 - (E) Discovering a buried treasure
9. When Zach was eight years old, he ate a piece of shrimp that caused him to become ill. Now Zach is seventeen and becomes nauseous whenever he smells shrimp. Zach has experienced what principle of classical conditioning?
- (A) Negative reinforcement
 - (B) Systematic desensitization
 - (C) Higher-order conditioning
 - (D) Latent learning
 - (E) Conditioned taste aversion
10. In operant conditioning, a _____ is any stimulus that increases behavior; a _____ is any stimulus that decreases behavior.
- (A) punishment; reinforcement
 - (B) punishment; punishment
 - (C) reinforcement; reinforcement
 - (D) reinforcement; punishment
 - (E) higher-order punishment; conditioned stimulus
11. Every time Rachel's parents leave her with Lisa, the babysitter, Rachel cries. Lisa came to Rachel's third birthday party, which caused Rachel to cry. According to the principles of classical conditioning, what is the conditioned stimulus?
- (A) Rachel's parents' leaving
 - (B) Rachel crying
 - (C) Rachel seeing Lisa at her house
 - (D) Lisa leaving Rachel's house
 - (E) People singing at Rachel's birthday party.
12. A rat receives a food pellet after a certain desired behavior is performed after every 45 seconds. Which of the following correctly identifies which schedule of reinforcement the rat has been placed on?
- (A) Fixed-interval
 - (B) Fixed-ratio
 - (C) Variable-interval
 - (D) Variable-ratio
 - (E) Continuous reinforcement

13. According to the principles of observational learning, what is seven-year-old Robert most likely to do after watching a violent television program?
- (A) Behave in a way that is opposite the behaviors on the television program
- (B) Behave in a way that is different from the behaviors on the television program
- (C) When experiencing a situation similar to what he saw on the television program, he will imitate what he saw
- (D) See the reaction of others and then decide how to behave
- (E) Behave in the same manner he would have if he had not seen the television program
14. If you want to train your dog to roll over, it is best to initially put her on which schedule of reinforcement?
- (A) Continuous reinforcement
- (B) Contiguous reinforcement
- (C) Partial reinforcement
- (D) Fixed-interval reinforcement
- (E) Variable-interval reinforcement
15. Sophie is in her car stopped at a red light. The light changes to green and Sophie proceeds to drive. The green light serves as what type of stimulus?
- (A) Extinction
- (B) Generalization
- (C) Discrimination
- (D) Secondary
- (E) Neutral

Free-Response Questions

1. Discuss how the research conducted by each of the following theorists may explain the acquisition of a spider phobia.
- (a) John B. Watson — *classical cond.* $NS \rightarrow \text{spider}$ $UCS (\text{spider bite}) \rightarrow UCR (\text{pain})$
- (b) B. F. Skinner — *operant cond.* $CS \rightarrow \text{spider}, CR \rightarrow \text{fear}$ (attention getting)
- (c) Albert Bandura — *observational learning, based on modeling*
- (d) Edward Tolman — *cognitive approach* \rightarrow thinks & realizes spiders are harmful
2. When Luis was three years old, he was a passenger in a canoe that flipped over, trapping him underneath. This experience has resulted in Luis's fear of canoes. Describe how a therapist might use each of the following behavioral techniques to help Luis overcome his phobia. Providing a definition alone is not sufficient; you must give an example that demonstrates your understanding of each behavioral technique.
- (a) Flooding — *surrounded by stimulus; put him in a canoe on a lake*
- (b) Systematic desensitization — *use relaxation to work up to being in a canoe*
- (c) Counterconditioning — *pair positive stimulus w/ fear stimulus \rightarrow cookies in the canoe*
- (d) Positive reinforcement — *cookies when he gets in the canoe*
- (e) Observational learning — *see someone else safe in a canoe, imitate the behavior*

Barons
Cognition

PRACTICE QUESTIONS

Directions: Each of the questions or incomplete statements below is followed by five suggested answers or completions. Select the one that is best in each case.

1. Mr. Krohn, a carpenter, is frustrated because he misplaced his hammer and needs to pound in the last nail in the bookcase he is building. He overlooks the fact that he could use the tennis trophy sitting above the workbench to pound in the nail. Which concept best explains why Mr. Krohn overlooked the trophy?
(A) representativeness heuristic
(B) retrieval
(C) functional fixedness
(D) belief bias
(E) divergent thinking
2. Phonemes and morphemes refer to
(A) elements of telegraphic speech toddlers use.
(B) elements of language.
(C) building blocks of concepts.
(D) basic elements of memories stored in long-term memory.
(E) two types of influences language has on thought according to the linguistic relativity hypothesis.
3. Which example would be better explained by the levels of processing model than the information-processing model?
(A) Someone says your name across the room and you switch your attention away from the conversation you are having.
(B) You forget part of a list you were trying to memorize for a test.
(C) While visiting with your grandmother, you recall one of your favorite childhood toys.
(D) You are able to remember verbatim a riddle you worked on for a few days before you figured out the answer.
(E) You pay less attention to the smell of your neighbor's cologne than to the professor's lecture in your college class.
4. Contrary to what Whorf's linguistic relativity hypothesis originally predicted, what effect does recent research indicate language has on the way we think?
(A) Since we think in language, the language we understand limits what we have the ability to think about.
(B) Language is a tool of thought but does not limit our cognition.
(C) The labels we apply affect our thoughts.
(D) The words in each language affect our ability to think because we are restricted to the words each language uses.
(E) The linguistic relativity hypothesis predicts that how quickly we acquire language correlates with our cognitive ability.

*sounds
meaning*

*iconic
echoic
semantic
- deep
processing*

*Whorf's Sapir
theory*

5. Which of the following is an example of the use of the representativeness heuristic?
- (A) Judging that a young person is more likely to be the instigator of an argument than an older person, because you believe younger people are more likely to start fights.
 - (B) Breaking a math story problem down into smaller, representative parts, in order to solve it.
 - (C) Judging a situation by a rule that is usually, but not always, true.
 - (D) Solving a problem with a rule that guarantees the right, more representative, answer.
 - (E) Making a judgment according to past experiences that are most easily recalled, therefore representative of experience.
6. Which of the following is the most complete list of elements in the three-box/information-processing model?
- (A) sensory memory, constructive memory, working memory, and long-term memory
 - (B) ~~short-term memory, working memory, and long-term memory~~ sorry
 - (C) shallow processing, deep processing, and retrieval
 - (D) sensory memory, encoding, working memory, and retrieval
 - (E) ~~sensory memory, working memory, encoding, long-term memory, and retrieval~~
7. Which of the following is an effective method for testing whether a memory is actually true or whether it is a constructed memory?
- (A) checking to see whether it was deeply processed or shallowly processed
 - (B) testing to see if the memory was encoded from sensory memory into working memory
 - (C) using a PET scan to see if the memory is stored in the hippocampus
 - (D) using other evidence, such as written records, to substantiate the memory
 - (E) there is no way to tell the difference between a true memory and a constructed one
8. One of the ways memories are physically stored in the brain is by what process?
- (A) deep processing, which increases levels of neurotransmitters in the hippocampus
 - (B) encoding, which stimulates electric activity in the hippocampus
 - (C) long-term potentiation, which strengthens connections between neurons
 - (D) selective attention, which increases myelination of memory neurons
 - (E) rehearsal, which causes the brain to devote more neurons to what is being rehearsed
9. According to the nativist theory, language is acquired
- (A) by parents reinforcing correct language use.
 - (B) using an inborn ability to learn language at a certain developmental stage.
 - (C) best in the language and culture native to the child and parents.
 - (D) only if formal language instruction is provided in the child's native language.
 - (E) best through the phonics instructional method, because children retain how to pronounce all the phonemes required for the language.
10. According to the three-box/information-processing model, stimuli from our outside environment is first stored in
- (A) working memory.
 - (B) the hippocampus.
 - (C) the thalamus.
 - (D) sensory memory.
 - (E) selective attention.

1. Which of the following is the best example of the use of the availability heuristic?
- (A) judging a situation by a rule that is usually, but not always, true
 - (B) making a judgment according to past experiences that are most easily recalled
 - (C) judging that a problem should be solved using a formula that guarantees the right answer
 - (D) making a judgment according to what is usually true in your experience
 - (E) solving a problem by breaking it into more easily available parts
12. Which sentence most accurately describes sensory memory?
- (A) Sensory memory stores all sensory input perfectly accurately for a short period of time.
 - (B) Sensory memory encodes only sensations we are attending to at the time.
 - (C) Sensory memory receives memories from the working memory and decides which memories to encode in long-term memory.
 - (D) Sensory memory records all incoming sensations and remembers them indefinitely.
 - (E) Sensory memory records some sensations accurately, but some are recorded incorrectly, leading to constructive memory.
13. Recall is a more difficult process than recognition because
- (A) memories retrieved by recognition are held in working memory, and recalled memories are in long-term memory.
 - (B) memories retrieved by recognition are more deeply processed.
 - (C) the process of recall involves cues to the memory that causes interference.
 - (D) memories retrieved by recognition are more recent than memories retrieved by recall.
 - (E) the process of recognition involves matching a person, event, or object with something already in memory.
14. Which of the following would be the best piece of evidence for the nativist theory of language acquisition?
- (A) a child who acquires language at an extremely early age through intense instruction by her or his parents
 - (B) statistical evidence that children in one culture learn language faster than children in another culture
 - (C) a child of normal mental ability not being able to learn language due to language deprivation at an early age
 - (D) a child skipping the babbling and telegraphic speech stages of language acquisition
 - (E) a child deprived of language at an early age successfully learning language later
15. A friend mentions to you that she heard humans never forget anything; we remember everything that ever happens to us. What concept from memory research most directly contradicts this belief?
- (A) sensory memory
 - (B) selective attention
 - (C) long-term memory
 - (D) constructive memory
 - (E) recovered memory

> Review Questions

Directions: For each question, choose the letter of the choice that best completes the statement or answers the question.

1. The three stages of the Atkinson-Shiffrin process of memory are
 - (A) iconic, echoic, encoding
 - (B) sensory, short term, long term
 - (C) shallow, medium, and deep processing
 - (D) semantic, episodic, procedural
 - (E) cerebellum, temporal lobe, hippocampus
2. Which of the following examples best illustrates episodic memory?
 - (A) telling someone how to tie a shoe
 - (B) answering correctly that the Battle of Hastings was in 1066
 - (C) knowing that the word for *black* in French is *noir*
 - (D) remembering that a clown was at your fifth birthday party
 - (E) long-term memory for the times tables learned in second grade
3. Doug wrote a grocery list of 10 items, but leaves it at home. The list included in order: peas, corn, squash, onions, apples, pears, bananas, flour, milk, and eggs. If the law of primacy holds, which of the following is Doug most likely to remember when he gets to the store?
 - (A) peas, pears, eggs
 - (B) banana, flour, peas
 - (C) apples, pears, bananas
 - (D) flour, milk, eggs
 - (E) peas, corn, onions
4. In the preceding example, which of the items would be recalled in Doug's short-term memory immediately after writing the list?
 - (A) peas, corn, squash
 - (B) peas, corn, onions
 - (C) apples, pears, bananas
 - (D) flour, milk, eggs
 - (E) flour, corn, bananas
5. According to the levels of processing theory of memory,
 - (A) we remember items that are repeated again and again
 - (B) maintenance rehearsal will encode items into our long-term memory
 - (C) deep processing involves elaborative rehearsal, ensuring encoding into long-term memory
 - (D) input, output, and storage are the three levels
 - (E) we can only hold 7 items in our short-term memory store before it is full
6. Which of the following brain structures plays a key role in transferring information from short-term memory to long-term memory?
 - (A) hypothalamus
 - (B) thalamus
 - (C) hippocampus
 - (D) frontal lobe
 - (E) parietal lobe
7. Dai was drunk, so his girlfriend convinced him to get out of his car, and she drove him home in her car. He could not remember where his car was parked when he got up the next morning, but after drinking some liquor, Dai remembered where he left his car. This phenomenon best illustrates
 - (A) the misinformation effect
 - (B) mood-congruent memory
 - (C) the framing effect
 - (D) state-dependent memory
 - (E) anterograde amnesia
8. Phonemes are:
 - (A) the rules of grammar that dictate letter combinations in a language
 - (B) the smallest unit of sound in a language
 - (C) the smallest unit of meaning in a language
 - (D) semantically the same as morphemes
 - (E) about 100 different words that are common to all languages

9. Because it has all of the features commonly associated with the concept bird, a robin is considered
- (A) a prototype
 - (B) a schematic
 - (C) an algorithm
 - (D) a phenotype
 - (E) a heuristic
10. Compared to convergent thinkers, to solve a problem, divergent thinkers are more likely to:
- (A) process information to arrive at the single best answer
 - (B) think creatively and generate multiple answers
 - (C) problem solve in a systematic step-by-step fashion
 - (D) frequently suffer from functional fixedness
 - (E) use algorithms rather than heuristics to arrive at a solution
11. Unlike B. F. Skinner, Noam Chomsky believes that children
- (A) learn to speak by mimicking the sounds around them
 - (B) speak more quickly if their parents correct their mispronunciations early
 - (C) are hard-wired for language acquisition
 - (D) learn language more quickly if positive rewards are given to them
 - (E) can learn to speak correctly only during a critical age
12. Which of the following is a good example of functional fixedness?
- (A) failing to use a dime as a screwdriver when you have lost your screwdriver
 - (B) not being able to solve a physics problem because you apply the same rule you always do
 - (C) using a blanket as a pillow
 - (D) adding water to a cake mix when it calls for milk
 - (E) thinking of an apple first when you are asked to name fruits
13. Having been told that Syd is an engineer and Fran is an elementary school teacher, when Arnold meets the couple for the first time, he assumes that Syd is the husband and Fran is the wife, rather than the opposite, which is the case. This best illustrates:
- (A) confirmation bias
 - (B) cognitive illusion
 - (C) the mere exposure effect
 - (D) the anchoring effect
 - (E) the representativeness heuristic
14. Which of the following is a holophrase one-year-old Amanda is likely to say?
- (A) "Mmmmm"
 - (B) "Gaga"
 - (C) "Eat apple"
 - (D) "I eated the cookie"
 - (E) "Bottle"
15. Which of the following exemplifies retroactive interference?
- (A) After suffering a blow to the head, Jean cannot form new memories.
 - (B) Elle failed a Spanish test because she studied for her Italian test after studying Spanish.
 - (C) Lee cannot remember an important date on the history exam.
 - (D) Gene cannot remember his new locker combination but remembers last year's.
 - (E) Jodi remembers the first few items on her school supply list, but can't remember the rest of them.

Chapter 11 Drill

Princeton
Review
Cognition

See Chapter 19 for answers and explanations.

- The main difference between auditory and visual sensory memory is that
 - visual memory dominates auditory memory
 - ~~visual sensory memory lasts for a shorter period of time than auditory sensory memory~~
 - visual sensory memory has a higher storage capacity than auditory sensory memory
 - a phone number read to an individual will be lost before a phone number that was glanced at for 15 seconds
 - if both visual and auditory stimuli are presented at the same time, the visual stimulus is more likely to be transferred to the long-term memory than is the auditory stimulus
- The greater likelihood of recalling information from memory while in the same or similar environment in which the memory was originally encoded is an example of
 - retroactive interference
 - chunking
 - elaborative rehearsal
 - ~~encoding specificity~~
 - procedural memory
- The term given to that part of language composed of tones and inflections that add or change meaning without alterations in word usage is
 - syntax
 - grammar
 - phonemics
 - semantics
 - ~~prosody~~
- Which of the following would NOT be an example of a two-year-old's usage of telegraphic speech?
 - "Where ball?"
 - "Boy hurt."
 - ~~"Milk."~~
 - "Mommy give hug."
 - "Go play group."
- Students are given a reasoning task in which they are asked, in sixty seconds, to come up with as many ways as possible to use a spoon that do not involve eating or preparing food. The number and diversity of responses could most accurately reflect the students'
 - ~~divergent thinking abilities~~
 - convergent thinking abilities
 - intelligence quotients
 - working memories
 - subordinate concepts

remember freezer items you might picture the freezer and the items that are normally located there. The link method involves linking a mental image with the content that is to be remembered. For example, if you need to remember to bring your book home you might link a picture of you doing homework with your book.

AP Tip

An essay question might ask you to explain how mnemonic devices improve memory. Be prepared to give examples.

Multiple-Choice Questions

1. When asked to give an example of what a bird is, Tom replied, "Do you mean a robin?" For Tom, a robin is an example of a(n):
(A) algorithm
(B) mental set
(C) concept
(D) prototype
(E) script
2. Which of the following best describes the use of availability heuristics?
(A) Jack believes that all secretaries are women.
(B) Sam is completing a mathematical problem step by step.
(C) Andrea fails to turn in an assignment, thinking it is due tomorrow.
(D) Steve believes that more injuries occur in hockey than in baseball.
(E) Angelica thinks that bulldogs are the best example of a dog.
3. Jillian is struggling with a challenging physics problem she can't seem to solve. Which problem-solving strategy would she benefit from?
(A) Functional fixedness
(B) A representativeness heuristic
(C) An availability heuristic
(D) Insight
(E) Incubation

4. One-year-old Hayden points to a horse and says "doggie." Hayden is displaying
- (A) overregularization
 - (B) telegraphic speech
 - (C) overextension
 - (D) incubation
 - (E) babbling
5. According to psychologists, what are the three components of language?
- (A) Plasticity, morphemes, phonemes
 - (B) Plasticity, syntax and semantics, infinite creativity
 - (C) Syntax and semantics, finite creativity, displacement
 - (D) Symbolic, representativeness, available
 - (E) Symbolic, generative, and structured
6. Mr. Flanders asks Sean to deliver a message to Mrs. Rogers. Sean has never been to Mrs. Rogers's room, but is told that it is two classrooms to the right of Mr. Smith's room. Because Sean had Mr. Smith last year for psychology, he knows where Mrs. Rogers's classroom is. Sean has used what component of thought to help him?
- (A) Cognitive map
 - (B) Script
 - (C) Functional fixedness
 - (D) Mental set
 - (E) Algorithm
7. Many students often miss multiple-choice questions that state, "Which of the following does NOT" apply to a given question. Their failure to notice a differently worded question such as this is an example of which obstacle to problem solving?
- (A) Functional fixedness
 - (B) Mental set
 - (C) Algorithm
 - (D) Confirmation bias
 - (E) Incubation
8. Clarisse goes to the store to purchase chips for her upcoming graduation party. Which problem-solving strategy would ensure that Clarisse finds the aisle containing the chips?
- (A) Representativeness heuristic
 - (B) Availability heuristic
 - (C) Mental set
 - (D) Incubation
 - (E) Algorithm

9. Which of the following demonstrates the principle of confirmation bias?
- (A) After learning that her friend was depressed, Julie says, "Of course she was depressed. She never wanted to do anything."
 - (B) Joe is passionate about environmental conservation, and refuses to listen to or read any data that contradicts his views.
 - (C) Carly hears that the new English teacher loves to read books and attend plays. She then assumes that the teacher is female.
 - (D) Erica is trying to solve a physics problem, but cannot think of which equation to use to do so, and instead begins her math homework.
 - (E) Samantha wants to eat a can of soup but does not have a can opener, so she uses a knife to cut a hole in the soup can.
10. Jimmy is watching for the first time a slide show depicting the historical figures in psychology. At this point, Jimmy is utilizing which process of memory?
- (A) Linking
 - (B) Encoding
 - (C) Retrieval
 - (D) Gathering
 - (E) Stimulating
11. During class Maria was called upon to give the year her mother was born. After a brief moment, she was able to remember. Maria's answer is classified as a(n)
- (A) procedural memory
 - (B) semantic memory
 - (C) episodic memory
 - (D) nondeclarative memory
 - (E) flashbulb memory
12. Rosita was having a hard time remembering the material she learned in class and that she knew was going to be on a test. As she walked into her classroom on the day of the test she immediately started to remember the forgotten content. This sudden occurrence could be explained by
- (A) recency effect
 - (B) context-dependent or context cues memory
 - (C) primacy effect
 - (D) retrieval failure
 - (E) semantic association
13. Steve can only remember his old locker combination; he keeps forgetting his new combination. Steve is experiencing
- (A) blocking interference
 - (B) retroactive interference
 - (C) proactive interference
 - (D) repression interference
 - (E) suppression interference

14. Ray hurt his head in a recent car accident and as a result of the accident has been experiencing problems recalling past events. Ray's doctors told his parents that Ray may be suffering from
- (A) anterograde amnesia
 - (B) misinformation effect
 - (C) incomplete schemas
 - (D) retrieval failure
 - (E) retrograde amnesia**
15. What psychologist believed that the forgetting of information will occur rapidly at first and will then level off, with the remaining information being retained for a long period of time?
- (A) Herman Ebbinghaus**
 - (B) Donald Hebb
 - (C) Karl Lashley
 - (D) Sigmund Freud
 - (E) Elizabeth Loftus

Free-Response Questions

1. The process of memory is said to be influenced by numerous factors. Explain how each of the following contributes to recall.
- (a) Serial position effect - remember beg. & end, not middle of list
 - (b) Representativeness heuristics - rely on stereotypes to reach conclusion
 - (c) Framing effect - wording influences memory (Loftus' car crash study)
 - (d) Elaborative rehearsal - associate new info. w/ previously learned info. →
2. Jerry is preparing for a geography test on the names of the states and their capitals.
- (a) Explain how each of the following would impact Jerry's taking the test. Be sure to define each term before citing an example that applies to the question.
 - (i) Context dependent memory - remember better in same environment
 - (ii) Cognitive map - mental reconstruction of the map (same desk, room)
 - (b) How might the following strategies aid Jerry in remembering the locations of the states, their names and the name of each state's capital?
 - (i) Method of Loci - place the state on diff. areas in his house
 - (ii) Incubation - write on another part of the map - might jog his memory about a part he can't remember

