Multiple Choice Questions

1. *(p. 177)* Psychologists use the term _____ to refer to a relatively permanent change in behavior resulting from experience.
A. growth
B. maturation
C. cognition
D. learning

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 17-1

2. *(p. 177)* Learning reflects _____. Maturation reflects _____.
A. nurture; nature
B. nature; nurture
C. nature; nature as well
D. nurture; nurture as well

APA Goal Outcome: 1.2
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 17-1

3. *(p. 177)* _____ is the decrease in response to a stimulus that occurs after repeated presentations of the same stimulus.
A. Sensation
B. Disinhibition
C. Habituation
D. Conservation

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 17-1

4. *(p. 177)* You toss a newly purchased felt mouse across the floor; your cat chases it excitedly, clutches it in her paws and rolls around with it. Several tosses later, your cat yawns pointedly and settles herself for a nap. The change in your cat's behavior illustrates:
A. adaptation.
B. habituation.
C. conditioning.
D. maturation.

APA Goal Outcome: 1.2
Bloom's Taxonomy: Apply
Difficulty: Medium
Learning Outcome: 17-1

5. *(p. 177, 181)* _____ refers to a decrease in the response to a stimulus when it is presented repeatedly, whereas _____ refers to the eventual disappearance of a conditioned response when an unconditioned stimulus is no longer presented.
A. Extinction; habituation
B. Habituation; extinction
C. Habituation; adaptation
D. Adaptation; habituation

APA Goal Outcome: 1.2
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 17-1

6. *(p. 177)* _____ is credited with laying the foundation for the study of classical conditioning in psychology.
A. Thorndike
B. Skinner
C. Pavlov
D. Watson

7. *(p. 178)* _____ is a type of learning in which a neutral stimulus comes to bring about a response after it is paired with a stimulus that naturally brings about that response.
A. Classical conditioning
B. Operant conditioning
C. Observational learning
D. Instrumental conditioning

8. *(p. 178)* _____ stimulus is a stimulus that does not naturally bring about the response of interest.
A. Reflexive
B. Unconditioned
C. Neutral
D. Normative

9. *(p. 178)* _____ stimulus is a stimulus that naturally brings about a particular response without having been learned.
A. Conditioned
B. Unconditioned
C. Neutral
D. Normative

10. *(p. 178)* In Pavlov's study, the UCS was _____; the neutral stimulus was _____; and, finally, the CS was _____.
A. meat; the bell; meat
B. meat; the bell; the bell
C. the bell; meat; meat
D. meat; meat; the bell

11. *(p. 178)* Tim loves dill pickles. Now, the sight of a jar on the supermarket shelf makes his mouth water. In the terminology of classical conditioning, the sight of the jar is a(n) _____.
A. conditioned stimulus
B. unconditioned stimulus
C. neutral stimulus
D. conditioned response

12. *(p. 178)* Alexis uses cocaine, which activates her sympathetic nervous system. Expecting her dealer, her hands shake and her heart pounds when she hears a knock on the door. Which alternative below CORRECTLY identifies the neutral stimulus, the CS, and the UCS?
A. Neutral stimulus—knock on the door; CS—cocaine; UCS—cocaine
B. Neutral stimulus—knock on the door; CS—knock on the door; UCS—pounding heart
C. Neutral stimulus—knock on the door; CS—knock on the door; UCS—cocaine
D. Neutral stimulus—cocaine; CS—knock on the door; UCS—cocaine

APA Goal Outcome: 1.2, 1.3, 4.2
Bloom's Taxonomy: Apply
Difficulty: Medium
Learning Outcome: 17-2

13. *(p. 178)* In classical conditioning, how are the neutral stimulus and the conditioned response related?
A. They are not related; they are completely different stimuli.
B. They are the same thing; the terms are interchangeable.
C. The neutral stimulus becomes the conditioned stimulus.
D. The conditioned stimulus becomes the neutral stimulus.

APA Goal Outcome: 1.2, 1.3
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 17-2

14. *(p. 178-179)* Nature is to nurture what _____ is to _____.
A. conditioned stimulus; unconditioned stimulus
B. conditioned response; unconditioned response
C. neutral stimulus; conditioned stimulus
D. unconditioned response; conditioned response

APA Goal Outcome: 1.2, 1.3
Bloom's Taxonomy: Understand
Difficulty: Easy
Learning Outcome: 17-2

15. *(p. 179)* Classical conditioning is most successful when the neutral stimulus begins:
A. just before the unconditioned stimulus begins.
B. at exactly the same time that the unconditioned stimulus begins.
C. long before the unconditioned stimulus begins.
D. immediately after the unconditioned stimulus begins.

APA Goal Outcome: 1.2, 1.3
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 17-2

16. *(p. 180)* Which pair below CORRECTLY identifies a stimulus or response in Watson and Rayner's "Little Albert" study?
A. Unconditioned stimulus—noise
B. Conditioned stimulus— fear
C. Unconditioned response—rat
D. Neutral stimulus—fear

APA Goal Outcome: 1.2, 1.3
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 17-2

17. *(p. 180)* Jonas is a veteran of the war in Iraq. He suffers from PTSD. Now, back home in a quiet California neighborhood, he jumps when he hears a firecracker or a car backfire. In the terminology of classical conditioning, these sounds are best thought of as _____ stimuli.
A. neutral
B. unconditioned
C. conditioned
D. normative

APA Goal Outcome: 1.2, 1.3, 4.2
Bloom's Taxonomy: Apply
Difficulty: Medium
Learning Outcome: 17-2

18. *(p. 181)* _____ occurs when a previously conditioned response decreases in frequency and eventually disappears.
A. Extinction
B. Habituation
C. Adaptation
D. Deconditioning

19. *(p. 181)* Which of the following scenarios exemplifies extinction?
A. Alexis is a former cocaine user. Now that she no longer uses cocaine, her hands no longer shake and her heart no longer pounds when she hears a car pull into her drive, like her dealer used to do in his car.
B. Alexis uses cocaine. She no longer feels quite the same rush as she did when she first started using.
C. Alexis is a former cocaine user in recovery. After a relapse, though, her hands shake and her heart pounds when she hears a car pull into her drive, like her dealer used to do in his car.
D. Alexis uses cocaine. She finds that she is slowly losing her sense of smell.

20. *(p. 181)* Which of the following sequences CORRECTLY arranges the phases of the classical conditioning process, from first to last?
A. Acquisition spontaneous recovery extinction
B. Acquisition extinction spontaneous recovery
C. Spontaneous recovery acquisition extinction
D. Extinction acquisition spontaneous recovery

21. *(p. 182)* The reemergence of an extinguished conditioned response after a period of rest and with no further conditioning is known as _____.
A. extinction
B. habituation
C. spontaneous recovery
D. deconditioning

22. *(p. 182)* Which of the following scenarios best exemplifies spontaneous recovery?
A. Alexis is a former cocaine user. Now that she no longer uses cocaine, her hands no longer shake and her heart no longer pounds when she hears a car pull into her drive, like her dealer used to do in his car.
B. Alexis uses cocaine. She no longer feels quite the same rush as she did when she first started using.
C. Alexis is a former cocaine user in recovery. After a relapse, though, her hands shake and her heart pounds when she hears a car pull into her drive, like her dealer used to do in his car.
D. Alexis uses cocaine. She finds that she is slowly losing her sense of smell.

23. *(p. 182)* _____ is a process in which, after a stimulus has been conditioned to produce a particular response, stimuli that are similar to the original stimulus produce the same response.
A. Stimulus location
B. Stimulus generalization
C. Stimulus reflexive
D. Stimulus discrimination

24. *(p. 182)* Which of the following is true of stimulus generalization?
A. It is the process that occurs if two stimuli are sufficiently distinct from one another.
B. The greater the similarity between two stimuli, the greater the likelihood of stimulus generalization.
C. The conditioned response elicited by the new stimulus is usually more intense than the original conditioned response.
D. Stimulus generalization provides the ability to differentiate between stimuli.

APA Goal Outcome: 1.2, 4.2
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 17-2

25. *(p. 182)* Rosa becomes anxious when she enters the examination room at the clinic before a blood test. She also squirms when she views injections on television. This illustrates:
A. observational learning.
B. stimulus generalization.
C. spontaneous recovery.
D. stimulus discrimination.

APA Goal Outcome: 1.2, 4.2
Bloom's Taxonomy: Apply
Difficulty: Medium
Learning Outcome: 17-2

26. *(p. 182)* _____ occurs if two stimuli are sufficiently distinct from each other that one evokes a conditioned response but the other does not.
A. Stimulus location
B. Stimulus generalization
C. Stimulus diffusion
D. Stimulus discrimination

APA Goal Outcome: 1.2, 4.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 17-2

27. *(p. 182)* Which of the following terms best expresses the relationship between stimulus generalization and stimulus discrimination?
A. They are unrelated.
B. They are opposites.
C. They are the same thing.
D. Stimulus discrimination is a type of stimulus generalization.

APA Goal Outcome: 1.2
Bloom's Taxonomy: Understand
Difficulty: Easy
Learning Outcome: 17-2

28. *(p. 182)* June's cat runs to the kitchen at the sound of the electric can opener, which she has learned is used to open her food when her dinner is about to be served. The cat does not run when a blender is used, although it sounds similar. June's cat is demonstrating stimulus:
A. control.
B. discrimination.
C. generalization.
D. diffusion.

APA Goal Outcome: 1.2, 4.4
Bloom's Taxonomy: Apply
Difficulty: Medium
Learning Outcome: 17-2

29. *(p. 182)* Janine completed several tours of duty in Afghanistan. She suffers from PTSD. Now, back home in Texas, she is frightened by firecrackers and cars backfiring. The fact that these sounds scare her reflects a process of stimulus:
A. diffusion.
B. discrimination.
C. generalization.
D. control.

APA Goal Outcome: 1.2, 4.2
Bloom's Taxonomy: Apply
Difficulty: Medium
Learning Outcome: 17-2

30. *(p. 183)* Stimulus _____ provides the ability to differentiate between stimuli.
A. control
B. discrimination
C. generalization
D. diffusion

31. *(p. 183)* In what way does learned taste aversion seem to contradict the basic principles of classical conditioning?
A. In learned taste aversion, the CS and the UCR are separated by only a brief interval.
B. Learned taste aversion can occur after only a single CS-UCR pairing.
C. Learned taste aversion takes longer to develop than do most classical conditioning processes.
D. Learned taste aversion is subject to biologically based constraints while, classical conditioning is not.

32. *(p. 185)* _____ is learning in which a voluntary response is strengthened or weakened, depending on its favorable or unfavorable consequences.
A. Classical conditioning
B. Operant conditioning
C. Observational learning
D. Instrumental conditioning

33. *(p. 185)* Operant conditioning most importantly involves forming associations between:
A. neutral and unconditioned stimuli.
B. stimuli and involuntary behavior.
C. behavior and consequences.
D. conditioned response and reflex.

34. *(p. 185)* Classical conditioning applies mostly to _____. Operant conditioning applies mainly to _____.
A. biological responses; voluntary responses
B. voluntary behavior; involuntary behavior
C. voluntary behavior; biological behavior
D. involuntary response; involuntary behavior

35. *(p. 185)* The root of operant conditioning may be traced to _____'s early studies of hungry cats learning to escape from cages.
A. Skinner
B. Thorndike
C. Watson
D. Pavlov

36. *(p. 185)* "Responses that lead to satisfying consequences are more likely to be repeated." This is the law of:
A. consequences.
B. reward.
C. effect.
D. reinforcement.

37. *(p. 186)* The most influential psychologist to study operant conditioning was:
A. Freud.
B. Watson.
C. Pavlov.
D. Skinner.

38. *(p. 186)* The process by which a stimulus increases the likelihood that a preceding behavior will be repeated is called:
A. habituation.
B. reinforcement.
C. learning.
D. spontaneous recovery.

39. *(p. 186)* Which of the following approaches to treating a phobia is/are CORRECTLY matched with the type of learning it reflects?
A. Conditioning client to associate a response of relaxation rather than anxiety to the feared object - observational learning
B. Reinforcing client directly by interacting with the feared object - operant conditioning
C. Exposing client to a model interacting successfully with the feared object - classical conditioning
D. A new behavior is learned but not demonstrated until some incentive is provided for displaying it - Perceptual learning

40. *(p. 187)* A _____ is any stimulus that increases the probability that a preceding behavior will occur again.
A. catalyst
B. rejoinder
C. reinforcer
D. stimulant

41. *(p. 187)* Reinforcers that satisfy a biological need are called _____ reinforcers.
A. primary
B. positive
C. unconditioned
D. reflexive

42. *(p. 187)* Nature is to nurture what _____ reinforcers are to _____ reinforcers.
A. positive; negative
B. secondary; primary
C. unconditioned; conditioned
D. primary; secondary

43. *(p. 187)* Which of the following reinforcers is INCORRECTLY categorized?
A. Food—primary reinforcer
B. Money—primary reinforcer
C. Praise—secondary reinforcer
D. Relief—primary reinforcer

44. *(p. 187)* Which of the following is an example of a secondary reinforcer?
A. Food
B. Sex
C. Money
D. Relief

45. *(p. 187-188)* As part of a behavior modification program, Kendra and her partner each agree to praise the other if she completes her assigned household chores by the end of the day. Such praise is an example of:
A. primary reinforcement and positive reinforcement.
B. secondary reinforcement and positive reinforcement.
C. positive reinforcement only.
D. primary reinforcement only.

46. *(p. 188)* The term *reward* is synonymous with:
A. positive reinforcement only.
B. reinforcement generally.
C. negative reinforcement only.
D. primary reinforcement only.

47. *(p. 188)* A(n) _____ reinforcer is a stimulus added to the environment, like getting paid to work, that specifically brings about an increase in a preceding response.
A. primary
B. positive
C. unconditioned
D. neutral

48. *(p. 188)* A(n) _____ reinforcer refers to the removal of an unpleasant stimulus, putting on a sweater when your cold for example, which leads to an increase in the probability that a preceding response will be repeated in the future.
A. negative
B. secondary
C. unconditioned
D. neutral

49. *(p. 187)* One reason Carlos continues to work at his job is the check he receives every two weeks. Carlos' paycheck is a _____ reinforcer.
A. neutral
B. primary
C. secondary
D. negative

50. *(p. 188)* Dr. DiFonzo notices several students nodding in agreement as he lectures. Subsequently, his rhetoric becomes more confident and more passionate. The students have provided _____ reinforcement.
A. positive
B. secondary
C. conditioned
D. neutral

51. *(p. 188)* Negative reinforcement:
A. is the same thing as punishment.
B. increases the likelihood that preceding behaviors will be repeated.
C. decreases the likelihood that a behavior will be performed.
D. is a stimulus whose removal leads to a decrease in the probability that a preceding response will be repeated.

52. *(p. 188)* Which of the following scenarios exemplifies negative reinforcement?
A. Vanna fastens her seatbelt as soon as she gets in her car to stop the annoying alert sound.
B. Drake no longer cuts class, now that his parents confiscated his iPod.
C. Maria now buys a different brand of cigarettes to get two packs for the price of one.
D. Nate no longer arrives late at work following a reprimand from his boss.

53. *(p. 188)* _____ weakens a response through the application of an unpleasant stimulus.
A. Negative reinforcement
B. Negative punishment
C. Positive punishment
D. Normative reinforcement

54. *(p. 188)* _____ punishment consists of the removal of something pleasant.
A. Prescriptive
B. Negative
C. Positive
D. Normative

55. *(p. 188)* Which of the following scenarios exemplify negative punishment?
A. Astrid tells her daughter she is grounded for misbehaving and cannot meet her friends for a week.
B. Carly yells at her husband when he comes home drunk.
C. Jim makes his middle-schoolers run extra laps when they are unruly in gym class.
D. Joanie takes several ibuprofen tablets when she has a headache.

56. *(p. 188)* Which of the following is an example of positive punishment?
A. You fight with your significant other and walk away
B. Getting a speeding ticket
C. Grounding a child for misbehaving and not letting him/her watch television
D. Giving your dog a treat for rolling over

57. *(p. 189)* Sheryl's parents have told her that she is "grounded" and will not be allowed to watch any television for a week, because she is not completing her assignments on time. This is an example of:
A. negative punishment.
B. negative reinforcement.
C. positive punishment.
D. positive reinforcement.

APA Goal Outcome: 1.2, 1.3, 4.2, 9.3
Bloom's Taxonomy: Apply
Difficulty: Medium
Learning Outcome: 18-1

58. *(p. 188)* Which of the following is an example of negative punishment?
A. You fight with your significant other and walk away.
B. Spanking a child for misbehaving.
C. Yelling at your spouse for being irresponsible.
D. Informing an employee that he has been demoted because of a poor job evaluation.

APA Goal Outcome: 1.2, 1.3, 4.4
Bloom's Taxonomy: Apply
Difficulty: Medium
Learning Outcome: 18-1

59. *(p. 188)* Which of the following types of consequences is CORRECTLY matched with an example?
A. Positive reinforcement - Vickie applies lotion to lessen the discomfort of a small burn
B. Negative reinforcement - Ella's parents confiscate her car keys for breaking curfew
C. Positive punishment - Laurel's mother yells at her when Laurel takes $20 from her mom's purse
D. Negative punishment - Maddie receives a bonus for outstanding work performance

APA Goal Outcome: 1.2, 1.3, 4.4
Bloom's Taxonomy: Understand
Difficulty: Easy
Learning Outcome: 18-1

60. *(p. 188)* Which of the following types of consequences is CORRECTLY matched with an example?
A. Positive reinforcement - Harvey is suspended when he vandalizes school property
B. Negative reinforcement - Jeff puts up his umbrella when it starts to sprinkle so he won't get wet
C. Positive punishment - Jacqueline's teacher puts a cute sticker on an arithmetic exercise completed without mistakes
D. Negative punishment - Tommy receives a written reprimand from his boss following a series of customer complaints

61. *(p. 189)* Which of the following is not a disadvantage of punishment?
A. It is ineffective if it is not delivered immediately after the undesirable behavior.
B. Physical punishment sends the message that aggressive behavior is appropriate.
C. It tends to change behavior very slowly.
D. Punishment does not suggest which alternative behaviors might be more desirable.

62. *(p. 190)* Behavior that is reinforced every time it occurs is said to be on a(n) _____ reinforcement schedule
A. secondary
B. positive
C. intermittent
D. continuous

63. *(p. 190)* You don't receive a smile or a "thank you" each time you hold a door for the person behind you. It is acknowledged sometimes. Door-holding is reinforced on a(n) ____ reinforcement schedule.
A. continuous
B. partial
C. regular
D. fixed

64. *(p. 190)* Vending machine is to slot machine what ____ reinforcement is to ____ reinforcement.
A. secondary; primary
B. continuous; intermittent
C. partial; intermittent
D. variable; fixed

65. *(p. 191)* A fixed-ratio schedule is a schedule:
A. by which reinforcement is given only after a specific number of responses are made.
B. by which reinforcement occurs after a varying number of responses rather than after a fixed number.
C. that provides reinforcement for a response only if a fixed time period has elapsed, making overall rates of response relatively low.
D. by which the time between reinforcements varies around some average rather than being fixed.

66. *(p. 191)* Which of the following promotions exemplifies the use of a fixed-ratio schedule of reinforcement?
A. A café prints "You are a winner" on a random one-twelfth of its coffee lids; patrons receiving such a lid can redeem it for a free beverage.
B. A café offers its customers a punch card. Each time a patron purchases a beverage, a hole is punched; when ten holes are punched, the patron receives a free beverage.
C. A café offers each patron an early morning two-for-one free-beverage-with-purchase deal from 5 to 6 a.m. on Monday mornings.
D. Now and then, a café announces a two-for-one deal.

APA Goal Outcome: 1.2, 1.3, 4.4
Bloom's Taxonomy: Apply
Difficulty: Medium
Learning Outcome: 18-1

67. *(p. 191)* Dr. Arceneaux wants his students to take advantage of online practice quizzes on his course site. Which of the following is the most effective plan to increase the number of practice quizzes completed?
A. 1 bonus point for every 2 online practice quizzes completed
B. 5 points deducted from course total if no quizzes are completed
C. 1 bonus point awarded every 2 weeks if 2 or more quizzes have been completed
D. 1 bonus point awarded every now and then (about 2 weeks on average) if 2 or more quizzes have been completed recently

APA Goal Outcome: 1.2, 1.3, 4.4
Bloom's Taxonomy: Apply
Difficulty: Medium
Learning Outcome: 18-1

68. *(p. 191)* A variable-ratio schedule is a schedule:
A. by which reinforcement is given only after a specific number of responses are made.
B. by which reinforcement occurs after a fluctuating number of responses rather than after a fixed number.
C. that provides reinforcement for a response only if a fixed time period has elapsed, making overall rates of response relatively low.
D. by which the time between reinforcements varies around some average rather than being fixed.

APA Goal Outcome: 1.2, 1.3
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 18-1

69. *(p. 191)* Dr. Arceneaux has developed several alternative plans to increase the number of online practice quizzes his students complete. Which plan below is incorrectly matched with the related schedule?
A. 1 bonus point for every two online practice quizzes completed—*fixed-ratio*
B. 1 bonus point awarded every 2 weeks if two or more quizzes have been completed—*fixed-interval*
C. 1 bonus point awarded every now and then (about 2 weeks on average) if two or more quizzes have been completed recently—*variable-ratio*
D. 1 bonus point awarded randomly, either for every 2 online quizzes taken or 2 bonus points for all those students taken within the first week—variable interval

APA Goal Outcome: 1.2, 1.3, 4.4
Bloom's Taxonomy: Apply
Difficulty: Medium
Learning Outcome: 18-1

70. *(p. 191)* Imagine that you graphed the cumulative number of bar-press responses over time of four rats, each reinforced on a different one of the four schedules of intermittent reinforcement. Each rat's behavior is graphed on a separate line. The line with the greatest slope should be that displaying the behavior of the rat reinforced on the _____ schedule.
A. fixed-ratio
B. fixed-interval
C. variable-interval
D. variable-ratio

71. *(p. 192)* In general, _____ schedules of reinforcement yield high response rates.
A. variable-interval
B. fixed-interval
C. variable-ratio
D. fixed-ratio

72. *(p. 191)* Typically long pauses in responding are found in _____ schedules.
A. fixed-interval
B. fixed-ratio
C. variable-interval
D. variable-ratio

73. *(p. 192)* A privately funded program pays low-income parents $50 every two months for each child who attends school regularly during that period. This incentive illustrates a _____ schedule of reinforcement.
A. fixed-interval
B. fixed-ratio
C. variable-interval
D. variable-ratio

74. *(p. 192)* A fixed-interval schedule is a schedule:
A. by which reinforcement is given only after a specific number of responses are made.
B. by which reinforcement occurs after a varying number of responses rather than after a fixed number.
C. that provides reinforcement for a response only if an unvarying time period has elapsed, making overall rates of response relatively low.
D. by which the time between reinforcements varies around some average rather than being constant.

75. *(p. 192)* Paychecks and semester grades are delivered on a _____ schedule of reinforcement.
A. fixed-ratio
B. fixed-interval
C. variable-ratio
D. variable-interval

76. *(p. 192)* A variable-interval schedule is a schedule:
A. by which reinforcement is given only after a specific number of responses are made.
B. by which reinforcement occurs after a varying number of responses rather than after a fixed number.
C. that provides reinforcement for a response only if a fixed time period has elapsed, making overall rates of response relatively low.
D. by which the time between reinforcements fluctuates around some average rather than being fixed.

77. *(p. 192)* Which of the following is true about stimulus control training?
A. In stimulus control training, a behavior is reinforced in the presence of a specific stimulus.
B. In stimulus control training, a behavior is reinforced in the absence of a specific stimulus.
C. Stimulus control training is the process of teaching a complex behavior by rewarding closer and closer approximations of the desired behaviour.
D. Stimulus control training is the process of teaching a simple behavior by rewarding closer and closer approximations of the desired behaviour.

78. *(p. 193)* Ewan is convinced that a woman across the bar is "sending signals." A learning theorist would term such signals:
A. conditioned stimuli.
B. discriminative stimuli.
C. positive reinforcers.
D. intermittent reinforcers.

79. *(p. 193)* Sheryl makes pleasant small talk and pays her boss a compliment before asking for a personal day, because such a strategy was successful with a few of her previous bosses. This example most clearly illustrates:
A. stimulus generalization.
B. stimulus control.
C. stimulus discrimination.
D. shaping.

APA Goal Outcome: 1.2, 1.3, 4.4
Bloom's Taxonomy: Apply
Difficulty: Medium
Learning Outcome: 18-1

80. *(p. 194)* The process of teaching complex behavior by reinforcing ever closer approximations of the desired behavior is called:
A. stimulus control training.
B. discrimination training.
C. shaping.
D. behavior modification.

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 18-1

81. *(p. 194)* Mrs. Martin, a third-grade teacher, is instructing cursive writing. At first, she reinforces even crude attempts to reproduce letters with an encouraging word; as time goes on, though, she reinforces only well-formed letters. By reinforcing progressively better attempts at writing letters, Mrs. Martin is using:
A. discrimination training.
B. shaping.
C. stimulus control training.
D. behavior modification.

APA Goal Outcome: 1.2, 4.4
Bloom's Taxonomy: Apply
Difficulty: Medium
Learning Outcome: 18-1

82. *(p. 196)* Which of the following does not accurately reflect a distinction between classical and operant conditioning?
A. Classical conditioning entails forming an association between stimuli; operant conditioning involves forming an association between a behavior and its consequences.
B. Classical conditioning applies to voluntary behavior, while operant conditioning applies to involuntary behavior.
C. In the case of classical conditioning, before conditioning, an unconditioned stimulus leads to an unconditioned response; in operant conditioning reinforcement leads to an increase in behavior.
D. In the case of classical conditioning, after conditioning, a conditioned stimulus leads to a conditioned response; in operant conditioning punishment leads to a decrease in behavior.

APA Goal Outcome: 1.2, 1.3
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 18-1

83. *(p. 196)* Which of the following is true of classical conditioning?
A. Its basic principle is that reinforcement increases the frequency of the behavior preceding it; punishment decreases the frequency of the behavior preceding it.
B. It applies to involuntary behavior.
C. According to classical conditioning, reinforcement leads to an increase in behavior.
D. According to classical conditioning, organism voluntarily operates on its environment to produce a desirable result. After behavior occurs, the likelihood of the behavior occurring again is increased or decreased by the behavior's consequences.

APA Goal Outcome: 1.2, 1.3
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 18-1

84. *(p. 196)* Dr. Simonelli is a practicing behavior analyst. What does she do?
A. She helps clients explore the unconscious motivations behind their behaviors.
B. She helps clients change how they think about their own behavior and that of others.
C. She specializes in behavior modification techniques.
D. She conducts basic research into conditioning mechanisms and principles.

85. *(p. 197)* _____ is a formalized technique for promoting the frequency of desirable conducts and decreasing the incidence of unwanted ones.
A. Functional modification
B. Genetic modification
C. Posttranslational modification
D. Behavior modification

86. *(p. 200)* The cognitive learning concept of _____ learning is associated most prominently with _____.
A. latent; Tolman
B. latent; Thorndike
C. implicit; Tolman
D. implicit; Thorndike

87. *(p. 200)* The _____ is an approach to the study of learning that focuses on the thought processes that underlie learning.
A. transformative learning theory
B. behavioral learning theory
C. cognitive learning theory
D. constructivism learning theory

88. *(p. 200)* Psychologists working within the cognitive learning perspective:
A. deny the importance of classical and operant conditioning.
B. go beyond classical and operant conditioning.
C. perform research essentially identical to that conducted by more traditional learning theorists.
D. have probably never heard of classical and operant conditioning.

89. *(p. 200)* Which of the following does the cognitive learning theory emphasize?
A. Expectations
B. Imitation
C. Consolidation
D. Associations

90. *(p. 200)* The focus of classical and operant conditioning is on ____; the focus of the cognitive learning approach is on ____.
A. external stimuli, responses, and reinforcement; internal thoughts and expectations of learners
B. external stimuli, responses, and reinforcement; external stimuli, responses, and reinforcement as well
C. internal thoughts and expectations of learners; external stimuli, responses, and reinforcement
D. internal thoughts and expectations of learners; internal thoughts and expectations of learners as well

APA Goal Outcome: 1.2
Bloom's Taxonomy: Understand
Difficulty: Easy
Learning Outcome: 19-1

91. *(p. 200)* Learning in which a new behavior is acquired but is not demonstrated until some incentive is provided for displaying it is known as ____ learning.
A. tangential
B. latent
C. perceptual
D. spatial

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 19-1

92. *(p. 200)* Which theorist is CORRECTLY matched with the concept with which he is associated?
A. Bandura—classical conditioning
B. Tolman—latent learning
C. Pavlov—observational learning
D. Watson—associative learning

APA Goal Outcome: 1.2
Bloom's Taxonomy: Understand
Difficulty: Easy
Learning Outcome: 19-1

93. *(p. 200)* _____ learning occurs without reinforcement.
A. Latent
B. Operant
C. Subliminal
D. Manifest

94. *(p. 201)* Recall Tolman's latent learning experiments in which rats learned to run a maze. What was the critical result?
A. Rats that were never given an incentive, never learned to run the maze.
B. Rats that were never given an incentive still learned to run the maze.
C. Rats that began to receive an incentive halfway through the experiment rapidly matched the performance of rats that had been reinforced from the beginning of the experiment.
D. Rats that began to receive an incentive halfway through the experiment never learned to run the maze.

95. *(p. 201)* A(n) _____ is a mental representation of spatial locations and directions.
A. algorithm
B. prototype
C. cognitive map
D. perceptual blueprint

96. *(p. 201)* You have a kind of picture in your head of your hometown, a mental representation of its layout and the location of key landmarks, like rivers, buildings, freeways, and parks. This representation is called a(n):
A. internal navigator.
B. mental GPS.
C. cognitive map.
D. perceptual blueprint.

APA Goal Outcome: 1.2, 4.4
Bloom's Taxonomy: Apply
Difficulty: Easy
Learning Outcome: 19-1

97. *(p. 202)* Learning by watching the behavior of another person, or model is known as _____.
A. perceptual learning
B. observational learning
C. latent learning
D. tangential learning

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 19-1

98. *(p. 202)* Bandura's "Bobo doll" experiments were intended to demonstrate:
A. shaping.
B. observational learning.
C. latent learning.
D. stimulus control training.

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 19-1

99. *(p. 202)* Observational learning is based in part on the activity of _____ neurons in the brain.
A. mirror
B. reflexive
C. imitative
D. modeling

100. *(p. 202-203)* Which of the following statements INCORRECTLY describes the effects on observational learning of the reinforcement or punishment of the model?
A. We are more likely to imitate reward models than we are to imitate non-reward models.
B. Observational learning does not occur when the model is punished.
C. Observing the punishment of a model does not stop observers from learning the behavior.
D. Observational learning is likely to occur when the model is rewarded.

101. *(p. 203)* Which of the following parts of the brain is associated with the process of mentalizing?
A. Amygdala
B. Prefrontal cortex
C. Hippocampus
D. Thalamus

102. *(p. 204)* According to the text, the average child in the U.S. has viewed more than _____ murders on network TV by the time he or she graduates from elementary school.
A. 12
B. 500
C. 8,000
D. 6,000

103. *(p. 204)* According to one survey, approximately one-_____ of violent young male offenders in Florida had attempted to commit a media-inspired copycat crime.
A. fifth
B. fourth
C. third
D. half

104. *(p. 204)* According to the text, exposure to actual firearm violence increases by a factor of _____ the likelihood that an adolescent will commit serious violence within the succeeding two years.
A. 1.5
B. 2
C. 3
D. 4

105. *(p. 205)* Travis is an intuitive thinker with a highly developed ability to remember verbal material, especially if it is highly relevant. Janet is detail-oriented, with an excellent memory for abstract material. She is not easily dissuaded by dull tasks. Which of the following statements best identifies the learning styles of these two individuals?
A. Travis has an analytical learning style. Janet's learning style is relational.
B. Travis has a relational learning style. Janet's learning style is analytical.
C. Both Travis and Janet have analytical learning styles.
D. Both Travis and Janet have relational learning styles.

APA Goal Outcome: 1.2
Bloom's Taxonomy: Apply
Difficulty: Medium
Learning Outcome: 19-1

106. *(p. 205)* Which alternative below CORRECTLY pairs a learning style described in your text with one of its characteristics?
A. Relational style - shows intuitive thinking
B. Relational style - able to focus on details
C. Analytical style - displays improvisational, intuitive thinking
D. Analytical style - displays good memory for relevant, verbal material

APA Goal Outcome: 1.2
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 19-1

107. *(p. 205-206)* Neal, an Asian-American student would most likely:
A. focus on detail.
B. have a good memory for verbally presented ideas and information.
C. learn materials that have a human, social content.
D. perceive information as part of total picture.

APA Goal Outcome: 1.2, 5.5, 8.2
Bloom's Taxonomy: Apply
Difficulty: Medium
Learning Outcome: 19-1

108. *(p. 206)* An analytic learning style is most likely to be displayed by:
A. Caucasian males.
B. Asian-American females.
C. Hispanic-American females.
D. Native-American males.

109. *(p. 206)* Which of the following students is most likely to display an analytical learning style?
A. Jamal, an African-American male
B. Lee, an Asian-American male
C. Mona, a Caucasian female
D. Nina, a Hispanic-American female

Fill in the Blank Questions

110. *(p. 177)* _____ is a decline in the behavioral response following repeated exposure to the same stimulus.
Habituation

111. *(p. 178)* In Pavlov's study, the bell is both a(n) _____ stimulus and a conditioned stimulus.
neutral

112. *(p. 178)* A bright flash automatically causes us to blink. It is a(n) _____ response.
unconditioned

113. *(p. 180)* _____ are intense, irrational fears.
Phobias

114. *(p. 182)* _____ occurs when an extinguished conditioned response reappears after a period of rest.
Spontaneous recovery

115. *(p. 182)* Adam was badly stung by a bee when he was a child. Now he is frightened not only of bees but of all flying insects. This example illustrates _____.
stimulus generalization

116. *(p. 183)* Olympia consumed some poorly stored sushi on a hot day; she became violently ill. Now Olympia can't stand the sight of sushi. She has developed a(n) _____.
learned taste aversion

117. *(p. 187)* A stimulus that increases the probability that a preceding behavior will be repeated is termed a(n) _____.
reinforcer

118. *(p. 187)* Money is an example of a _____ reinforcer.
secondary

119. *(p. 188)* Positive punishment _____ a response through the application of an unpleasant stimulus.
weakens

120. *(p. 192)* A weekly paycheck is an example of _____ schedule.
fixed-interval

121. *(p. 192)* When a behavior is reinforced in the presence of a specific stimulus, but not in its absence it is known as _____ training.
stimulus control

122. *(p. 193)* When your partner says "I'm going up to bed early," you follow expectantly. When he or she says, "I'm tired," you stay behind and say you'll read in the living room for a while. This is an example of a _____ stimulus.
discriminative

123. *(p. 194)* Shaping is one way that organisms learn _____ behavior.
complex

124. *(p. 196)* Dr. Margate specializes in using behavior modification techniques to help adults engage in health-promoting behaviors, such as exercising, quitting smoking, and so forth. Dr. Margate is a behavior _____.
analyst

125. *(p. 200)* Dr. Tabachnik focuses on the expectations participants develop regarding the likelihood that a given behavior will be punished. Dr. Tabachnik might be described as a(n) _____ theorist.
cognitive learning

126. *(p. 201)* In the latent learning study described in the text, the rats that were reinforced only during the latter portion of the experiment would be considered a(n) _____ group.

experimental

127. *(p. 202)* In observational learning, the organism whose behavior is observed is termed the _____.

model

128. *(p. 203)* _____ is a process which involves understanding someone's mental state.

Mentalizing

129. *(p. 205)* Although a "phonics" approach to reading instruction might capitalize on an analytic learning style, the "whole-word" approach may be better suited to a(n) _____ learning style.

relational

Essay Questions

130. *(p. 178)* Explain classical conditioning with a suitable example.

Students' examples may vary.

Classical conditioning is a type of learning in which a neutral stimulus (such as the experimenter's footsteps) comes to elicit a response after being paired with a stimulus (such as food) that naturally brings about that response.
To demonstrate classical conditioning, Pavlov attached a tube to the salivary gland of a dog, allowing him to measure precisely the dog's salivation. He then rang a bell and, just a few seconds later, presented the dog with meat. This pairing occurred repeatedly and was carefully planned so that, each time, exactly the same amount of time elapsed between the presentation of the bell and the meat. At first the dog would salivate only when the meat was presented, but soon it began to salivate at the sound of the bell. In fact, even when Pavlov stopped presenting the meat, the dog still salivated after hearing the sound. The dog had been classically conditioned to salivate to the bell.

APA Goal Outcome: 1.2, 1.3, 4.2, 4.4
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 17-2

131. *(p. 178-179)* In the case of Pavlov and his dog identify and describe the following: neutral stimulus, unconditioned stimulus, unconditioned response, conditioned stimulus, and conditioned response.

Before conditioning, there are two unrelated stimuli: the ringing of a bell and meat. We know that normally the ringing of a bell does not lead to salivation but to some irrelevant response, such as pricking up the ears or perhaps a startle reaction. The bell is therefore called the neutral stimulus, because it is a stimulus that, before conditioning, does not naturally bring about the response in which we are interested.
We also have meat, which naturally causes a dog to salivate—the response we are interested in conditioning. The meat is considered an unconditioned stimulus
(UCS) because food placed in a dog's mouth automatically causes salivation to occur. The response that the meat elicits (salivation) is called an unconditioned response (UCR) —a natural, innate, reflexive response that is not associated with previous learning. Unconditioned responses are always brought about by the presence of unconditioned stimuli. When conditioning is complete, the bell has evolved from a neutral stimulus to a conditioned stimulus (CS). At this time, salivation that occurs as a response to the conditioned stimulus (bell) is considered a conditioned response (CR). After conditioning, then, the conditioned stimulus evokes the conditioned response.

APA Goal Outcome: 1.2, 1.3, 4.2, 4.4
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 17-2

132. *(p. 180-182)* Making specific reference to such terms as UCS, CS, UCR, CR, and stimulus generalization, explain how classical conditioning may account for the development of a specific phobia.

The acquisition of a phobia begins with an unconditioned stimulus that reflexively elicits a startled, anxious, or fearful response. Such UCSs include loud noises, a loss of bodily support, and tissue damage. Neutral stimuli occurring along with the unconditioned stimulus may become conditioned stimuli, able to elicit a conditioned response of fear or anxiety. In Watson and Rayner's "Little Albert" study, for example, a previously neutral white rat was presented along with an unconditioned stimulus of loud noise; Little Albert came to fear the rat. Through the process of stimulus generalization, fear or anxiety may be elicited not only by the original CS, but by similar stimuli as well; Little Albert, for example, became fearful of other white or furry objects in addition to rats.

Example: Fear of flying: A fear of flying may be seen as essentially a fear of falling, of the loss of bodily support. During a period of turbulence, a flight passenger may experience a dropping or plummeting sensation, an unconditioned stimulus eliciting an unconditioned fear response. Surrounding stimuli, such as the flight cabin, may act as conditioned stimuli capable of eliciting a conditioned fear response. This response may generalize to the airplane itself and to other stimuli associated with flying.

APA Goal Outcome: 1.3, 4.2
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 17-2

133. *(p. 181-182)* Making reference to neutral, unconditioned, conditioned stimuli, unconditioned, and conditioned responses, distinguish between (a) extinction and spontaneous recovery and (b) stimulus generalization and stimulus discrimination. Give an original example of either extinction or spontaneous recovery, and of either stimulus generalization and stimulus discrimination.

The answer should contain the following points:

<u>Extinction vs. spontaneous recovery</u>: Extinction refers to the weakening and eventual disappearance of a conditioned response when the conditioned stimulus is presented repeatedly in the absence of the unconditioned stimulus. For example, a cat conditioned to run toward the kitchen at the sound of an electric can opener may eventually stop doing so when its owner begins to feed it only dry food, rather than canned wet food. Spontaneous recovery refers to the reemergence of an extinguished conditioned response when the unconditioned stimulus is again presented along with the conditioned stimulus. Returning to the previous example, a cat may immediately resume running toward the kitchen at the sound of the can opener when its owner again feeds it canned wet food after a period of feeding it only dry food.
<u>Stimulus generalization vs. stimulus discrimination</u>: Stimulus generalization occurs when a conditioned stimulus is elicited not only by the original conditioned stimulus, but also by similar stimuli. An individual with a needle phobia may react with anxiety not only to injections or blood tests, but to also to the mere sight of an injection on television or of a discarded needle on the sidewalk. By contrast, stimulus generalization occurs when a stimulus that might seem somewhat similar to the original conditioned stimulus fails to elicit the conditioned stimulus. For example, an individual with a needle phobia may react with anxiety to the sight of an injection on television or of a discarded needle on the sidewalk, but not to the sight of scissors, knives, or other sharp objects.

APA Goal Outcome: 1.2, 1.3, 4.2, 4.4
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 17-2

134. *(p. 183)* How have psychologists challenged Pavlov's traditional account of classical conditioning?

Psychologists have challenged Pavlov's original description of classical conditioning by suggesting that biology influences the ease with which associations may be conditioned.
Learning theorists influenced by cognitive psychology have argued that learners actively develop an understanding and expectancy about which particular unconditioned stimuli are matched with specific conditioned stimuli. A ringing bell, for instance, gives a dog something to think about: the impending arrival of food
Pavlov implied that all associations may be acquired with more or less equal ease. However, it appears that organisms are biologically prepared to learn certain associations more readily than others. One example is conditioned taste aversion. If a food makes an organism sick, the organism may acquire an association between stimuli associated with the food, such as its appearance or smell, and illness or nausea rapidly, perhaps after a single experience with illness following the food.

135. *(p. 188)* Imagine that you are a parent, a teacher, or a supervisor in a workplace. Give specific examples of how you might use (a) positive reinforcement, (b) negative reinforcement, (c) positive punishment, and (d) negative punishment to bring about desirable changes in the behavior of a child, student, or subordinate worker.

Students' examples may vary.

The answer might include examples such as the following:

Parent:
Positive reinforcement. A parent may give a child money for completing household chores, thereby increasing the likelihood that he or she will complete chores in the future.
Negative reinforcement. Following the exemplary completion of a series of chores, a parent might excuse the child from an odious chore he or she may have originally been expected to perform. The child may be more likely in the future to complete his or her chores.
Positive punishment. A parent may reprimand a child harshly for hitting a sibling. The child should be less likely to hit the sibling in the future.
Negative punishment. A parent may send a child to his or her room without dessert if the child throws a tantrum during the evening meal. The child should be less likely to throw tantrums in the future.
Teacher:
Positive reinforcement. A teacher may praise a student for completing an assignment without errors, thereby increasing the likelihood that he or she will complete assignments correctly in the future.
Negative reinforcement. A teacher may eliminate a homework assignment if recent homework has been completed in a timely and accurate fashion; the student's performance may improve in the future as a result.
Positive punishment. A teacher may write harsh comments on a carelessly done homework assignment, perhaps reducing the likelihood that assignments will be completed sloppily in the future.
Negative punishment. A child may be forced to sit alone in a corner or in the cloakroom if he or she behaves aggressively toward classmates; aggressive behavior should decrease in the future as a result.
Supervisor:
Positive reinforcement. A supervisor may give an employee a value card to a local restaurant or department store following a highly productive week, thereby encouraging future productivity.
Negative reinforcement. A supervisor may grant an employee a personal day or an extended lunch hour for exemplary work performance, encouraging high performance in the future.
Positive punishment. A supervisor may lecture an employee for making an off-color remark to another worker; the employee may be less likely to make such remarks in the future.
Negative punishment. A supervisor may eliminate a perk such as free coffee when employees abuse workplace privileges. Workers should be less likely to abuse privileges in the future.

136. *(p. 189-190)* Suppose that you are asked to lead a workshop for parents on the use of punishment and reinforcement to manage child and adolescent behavior. What might you tell the parents regarding the appropriate and inappropriate use of punishment? Provide concrete examples to support your points. Suggest how parents might use punishment more effectively and how they might substitute reinforcement for punishment. Provide concrete examples to support your points.

Students' examples may vary.

Punishment is sometimes appropriate. It is the most rapid means of suppressing behavior that may be dangerous to continue, such as running into the street or playing with matches. Punishment has also been applied successfully to prevent self-injury among autistic children.
Punishment is often used ineffectively by parents. First, punishment is only effective if it is delivered immediately after the undesirable behavior. For example, the threat, "Wait until your father gets home!" will do little to stop a toddler from writing on the wall. If punishment is to be used, it should be delivered while the behavior is underway. Second, the use of physical punishment—e.g., spanking, whipping—conveys the message that physical aggression is appropriate. It may cause the child to fear or evade the parent, and it may damage a child's self-esteem. A child may conceal his undesirable behavior, such as by writing on the walls inside a closet. Third, punishment is really only effective if it is accompanied by the reinforcement of desirable alternatives to the punished behavior. A parent might additionally reinforce drawing or writing on paper rather than on the wall, rather than only punishing the child when he writes on the wall. Punishment in and of itself does little to convey information regarding more appropriate behaviors.

137. *(p. 189-190)* What are the pros and cons of punishment?

Punishment often presents the quickest route to changing behavior that, if allowed to continue, might be dangerous to an individual. There are some rare instances in which punishment can be the most humane approach to treating certain severe disorders. For example, some children suffer from autism, a psychological disorder that can lead them to abuse themselves by tearing at their skin or banging their heads against the wall, injuring themselves severely in the process. In such cases—and when all other treatments have failed—punishment in the form of a quick but intense electric shock has been used to prevent self-injurious behavior. Such punishment, however, is used only to keep the child safe and to buy time until positive reinforcement procedures can be initiated.

Punishment has several disadvantages that make its routine questionable. For one thing, punishment is frequently ineffective, particularly if it is not delivered shortly after the undesired behavior or if the individual is able to leave the setting in which the punishment is being given. Even worse, physical punishment can convey to the recipient the idea that physical aggression is permissible and perhaps even desirable. In addition, physical punishment is often administered by people who are themselves angry or enraged. It is unlikely that individuals in such an emotional state will be able to think through what they are doing or control carefully the degree of punishment they are inflicting. Finally, punishment does not convey any information about what an alternative, more appropriate behavior might be. To be useful in bringing about more desirable behavior in the future, punishment must be accompanied by specific information about the behavior that is being punished, along with specific suggestions concerning a more desirable behavior.

APA Goal Outcome: 1.2, 1.3, 4.2
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 18-1

138. *(p. 189-195)* Draw on your knowledge of positive and negative reinforcement, punishment, schedules of reinforcement, stimulus control training, discriminative stimuli, shaping, and biological constraints on learning to describe how you might use operant conditioning to train domestic animals—e.g., dogs, cats, horses, etc.—to perform desired behaviors.

Students' answers may vary.

Positive reinforcement. We may reward a kitten with a cuddle when it begins to use its litter box.

Punishment. We may squirt a cat with water each time it climbs on the furniture or the curtains.

Schedules of reinforcement. When training a puppy to sit on command, we might reinforce it on a continuous schedule at first to facilitate the acquisition of the behavior; we may then fade the reinforcement schedule, reinforcing it on a fixed- or variable-ratio intermittent schedule to make the behavior resistant to extinction.

Stimulus control training and discriminative stimuli. We might wish to train a cat to use an outdoor litter box rather than a flower bed; we might reinforce the cat for using the box but punish it for using the flower bed.

Shaping. When training a puppy to sit on command, we might reinforce successive approximations to the desired behavior. For example, we might initially reinforce even fairly general squatting motions; later we might reinforce only a full sit.

Biological constraints on learning. We may take advantage of species-typical behaviors to train animals. Examples include the tendency of cats to bury their feces, the tendency of some breeds of dogs to burrow, and so on.

139. *(p. 191-192)* Identify and define the four schedules of intermittent or partial reinforcement. Provide day-to-day examples of each of the four schedules. Identify two specific ways that college professors might use our understanding of the schedules to increase the frequency with which students study course materials.

Students' examples may vary.

The answer should include the following:

<u>Four schedules of intermittent reinforcement</u>: Fixed-interval (FI), fixed-ratio (FR), variable-interval (VI), and variable-ratio (VR) schedules.
<u>Definitions and examples:</u>
Fixed-interval (FI). Reinforcement is delivered following a set or constant time period. Typical examples include grades and paychecks.
Fixed-ratio (FR). Reinforcement is delivered following a set or constant number of responses. Piecework offers a typical example.
Variable-interval (VI). Reinforcement is delivered following a time period that varies around an average. Fishing and holding on the phone are reinforced on a VI schedule.
Variable-ratio (VR). Reinforcement is delivered following a variable number of responses. Salespeople are reinforced with sales on such a schedule. Slot machines deliver payoffs on a VR schedule.
Professors might try to take advantage of the higher rates of responding seen under ratio schedules. Using an FR schedule, for example, professors could award points for each chapter summary or review completed. The text also suggests that giving quizzes on a VI rather than an FI schedule—that is, giving "pop" quizzes—might encourage students to study more regularly.

140. *(p. 197)* Identify a behavior of your own that you would like to perform more frequently (e.g., studying, completing household chores or yard work) or less frequently (e.g., snacking, smoking cigarettes). Outline a step-by-step behavior modification program that might help you achieve your goal.

The behavior students identify may differ.

Identifying goals and target behaviors. Define the desired behavior change and state goals and specific targets in observable, measurable terms. Example: Goal—to smoke fewer cigarettes; Target—to smoke no more than five cigarettes each day.
Designing a data-recording system and recording preliminary data. Collect baseline data. Example: record the number of cigarettes smoked each day for one week prior to attempting to change the behavior.
Selecting a behavior change strategy. Select strategies based on operant conditioning principles. More than one strategy should be used. For example, one might reward oneself with a desired activity (e.g., a phone call to a friend) each day that one meets the five-cigarette target. One might also reinforce activities incompatible with smoking cigarettes, such as visiting the gym.
Implementing the program. Apply the program consistently.
Keeping records. Monitor target behaviors. Example: record the number of cigarettes smoked each day; record the delivery of reinforcements, etc.
Evaluating and altering the ongoing program. Compare program data to the baseline data to determine the success of the program. If the program has been successful, it can be gradually faded; if it has not, changes may be made.

141. *(p. 200-202)* How do the phenomena of latent and observational learning force a reconsideration of the view of learning offered by classical and operant conditioning theorists? Provide as thoughtful a response as you can.

Two key ideas should form the core of the answer: (1) latent and observational learning phenomena suggest that direct reinforcement may not be necessary for an individual to learn; and (2) latent and observational learning phenomena suggest that internal processes may be a necessary component of any complete explanation of learning.
In Tolman's latent learning work, rats who began reinforcement for running a maze only halfway through the experiment rapidly matched the performance of rats who had been receiving reinforcement from the beginning, suggesting that they had been developing some internal representation of the maze all along. Reinforcement was not necessary for learning to occur; it was necessary only for the demonstration of learning in behavior. In Bandura's "Bobo doll" experiments, children only needed to see a model reinforced for aggressive behavior to become more aggressive themselves. Observational learning is supported internally by networks of mirror neurons.

APA Goal Outcome: 1.2, 1.3
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 19-1

142. *(p. 202-203)* Briefly describe what observational learning and Bandura's BoBo doll research. Discuss how this research altered conventional views of learning. What role might mirror neurons play in observational learning?

According to psychologist Albert Bandura and colleagues, a major part of human learning consists of observational learning, which is learning by watching the behavior of another person, or model. Because of its reliance on observation of others—a social phenomenon—the perspective taken by Bandura is often referred to as a social cognitive approach to learning. Observational learning is particularly important in acquiring skills in which the operant conditioning technique of shaping is inappropriate. Observational learning may have a genetic basis. For example, we find observational learning at work with mother animals teaching their young such activities as hunting. In addition, the discovery of mirror neurons that fire when we observe another person carrying out a behavior suggests that the capacity to imitate others may be innate. Not all behavior that we witness is learned or carried out, of course. One crucial factor that determines whether we later imitate a model is whether the model is rewarded for his or her behavior. Models who are rewarded for behaving in a particular way are more apt to be mimicked than are models who receive punishment. Observing the punishment of a model, however, does not necessarily stop observers from learning the behavior. Observers can still describe the model's behavior—they are just less apt to perform it. Observational learning is central to a number of important issues relating to the extent to which people learn simply by watching the behavior of others.

APA Goal Outcome: 2.2, 2.3, 3.1, 4.2
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 19-1

143. *(p. 203-204)* Observational learning research suggests that seeing others reinforced for particular behaviors may encourage our own acquisition of similar behaviors. To what extent is exposure to media violence associated with the acquisition of aggressive behavior?

Different levels of media violence are associated with aggressive behavior. The text offers the following evidence:

— One survey of incarcerated, violent young male offenders showed that 25% had tried to commit a media-inspired copycat crime.
— College students who frequently played violent video games were more likely to have been involved in delinquent behavior and aggression
The text mentions three specific mechanisms by which media violence may contribute to real-life aggression: (1) it may lower inhibitions against behaving aggressively; (2) it may predispose us to see others' behavior as aggressive even when it is not; and (3) it may desensitize us to violence.

144. *(p. 205-206)* To what extent does culture influence learning style? Distinguish between analytic and relational learning styles and suggest how they might vary across sociocultural groups. How might they reflect cross-cultural differences in parenting or teaching practices?

The answer should include the following elements:

Analytic learning style—Individuals with an analytic learning style perform best when they can undertake an initial analysis of the principles and components underlying a phenomenon.
Relational learning style—Individuals with a relational learning style perform best when they are first exposed to a full unit or complete phenomenon; the individual parts are best understood through their relationship to the whole.
Caucasian and Asian-American males tend to display an analytic learning style; Caucasian females and African-, Native-, and Hispanic-American males and females tend to display a relational style.
Parenting and teaching practices may encourage the development of one or the other of the learning styles. Western education tends to reinforce the acquisition of an analytic style, as does Caucasian-American parenting; it is possible that parenting styles among other sociocultural groups tend to encourage a more relational style.