Chapter 05
States of Consciousness

Multiple Choice Questions

1. *(p. 140)* _____ is the awareness of the sensations, thoughts, and feelings we experience at a given moment.
A. Perception
B. Intelligence
C. Speculation
D. Consciousness

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-1

2. *(p. 140)* Which of the following early psychologists viewed the study of consciousness as central to psychology?
A. Skinner
B. Watson
C. James
D. Freud

APA Goal Outcome: 1.2, 1.4
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-1

3. *(p. 142)* How long is a typical sleep cycle, in which a sleeper progresses through some or all of the sleep stages?
A. 1 hour
B. 90 minutes
C. 120 minutes
D. 5 hours

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-1

4. *(p. 142)* _____ is the state of transition between wakefulness and sleep, characterized by relatively rapid, low-amplitude brain waves.
A. Stage 1 sleep
B. Stage 2 sleep
C. Stage 3 sleep
D. Stage 4 sleep

APA Goal Outcome: 1.2, 1.4
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-1

5. *(p. 142)* During _____ images sometimes appear, as if we were viewing still photos.
A. stage 1 sleep
B. stage 2 sleep
C. stage 3 sleep
D. stage 4 sleep

APA Goal Outcome: 1.2, 1.4
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-1

6. *(p. 142)* _____ is characterized by a slower, more regular wave pattern than the previous stage, along with momentary interruptions of "sleep spindles."
A. REM
B. Stage 2 sleep
C. Stage 3 sleep
D. Stage 4 sleep

APA Goal Outcome: 1.2, 1.4
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-1

7. *(p. 142)* Brief periods of "spiky" brain wave patterns called sleep spindles are characteristic of _____ sleep.
A. REM
B. stage 1
C. stage 2
D. stage 4

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-1

8. *(p. 142)* _____ is the deepest stage of sleep, during which we are least responsive to outside stimulation.
A. Stage 1 sleep
B. Stage 2 sleep
C. Stage 3 sleep
D. Stage 4 sleep

APA Goal Outcome: 1.2, 1.4
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-1

9. *(p. 142)* Of the NREM sleep stages, stage _____ is the longest.
A. 2
B. 4
C. 3
D. 1

APA Goal Outcome: 1.2
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 14-1

10. *(p. 142, 143)* Adults spend about _____% of their sleep in Stage 2. Approximately _____% is spent in REM sleep.
A. 25; 20
B. 25; 50
C. 50; 20
D. 50; 35

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-1

11. *(p. 142)* In general terms, how do brain waves change as a sleeper progresses from stage 1 sleep to stage 4 sleep?
A. Their amplitude decreases.
B. Their frequency increases.
C. The brain waves become slower.
D. The brain waves become faster.

APA Goal Outcome: 1.2
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 14-1

12. *(p. 143)* Which of the following statements is true of REM sleep and dreaming?
A. It is the only sleep stage in which dreaming occurs.
B. The major muscles of the body appear to be paralyzed during REM sleep.
C. It is in this stage that dreams are least vivid.
D. Dreams that occur in this stage can rarely be remembered.

APA Goal Outcome: 1.2
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 14-1

13. *(p. 143)* Which of the following statements is true of dreams occurring in REM sleep and NREM sleep?
A. Dreams occur only in REM sleep.
B. Dreams are equally likely to occur in REM and NREM sleep.
C. Dreams occur in NREM sleep, but less frequently than in REM sleep; NREM dreams are also less vivid than are dreams in REM sleep.
D. Dreams occur in NREM sleep, but less frequently than in REM sleep; however, NREM dreams are more vivid than are dreams in REM sleep.

APA Goal Outcome: 1.2
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 14-1

14. *(p. 143)* All of the following statements regarding REM sleep are true EXCEPT:
A. heart rate increases and becomes irregular during REM sleep.
B. breathing rate increases during REM sleep.
C. vivid dreams occur during REM sleep.
D. the activity of skeletal muscles increases during REM sleep.

APA Goal Outcome: 1.2
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 14-1

15. *(p. 143)* REM sleep is paradoxical because:
A. the brain is active, but the major skeletal muscles appear to be paralyzed.
B. the skeletal muscles remain active, but the brain is inactive.
C. the brain is less active than it is during other sleep stages.
D. both the brain and the body are inactive.

APA Goal Outcome: 1.2
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 14-1

16. *(p. 144)* Anya pulled all-nighters both last night and the night before. Tonight, finally, she anticipates going to bed at her usual time. Which of the following alternatives MOST accurately *describes* and *identifies* what Anya is likely to experience?
A. Anya will spend a greater proportion of her sleep time than usual in the REM stage. This phenomenon is called *restoration.*
B. Anya will spend a greater proportion of her sleep time than usual in the REM stage. This phenomenon is called *rebound*.
C. Anya will spend a greater proportion of her sleep time than usual in the NREM stages. This phenomenon is called *restoration.*
D. Anya will spend a greater proportion of her sleep time than usual in the NREM stages. This phenomenon is called *rebound*.

APA Goal Outcome: 1.2, 4.4
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 14-1

17. *(p. 144)* The onset of REM sleep _____ the release of neurotransmitters called _____.
A. increases; endorphins
B. decreases; endorphins
C. starts; monoamines
D. stops; monoamines

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-2

18. *(p. 144)* Most people today sleep between _____ hours each night.
A. 2-3
B. 10-11
C. 4-5
D. 7-8

APA Goal Outcome: 1.2, 2.3, 7.3
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-2

19. *(p. 144-145)* Which of the following is true of sleeping patterns of men and women?
A. Women typically fall asleep more quickly than men.
B. Women have fewer concerns about the amount of sleep they get than men.
C. Men sleep for longer periods and more deeply than women.
D. Men get up fewer times in the night than women.

APA Goal Outcome: 1.2, 4.4
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 14-2

20. *(p. 145)* Which of the following is true of people who participate in sleep deprivation experiments?
A. Most people suffer permanent consequences of temporary sleep deprivation experiment.
B. They are more alert than people who do not take part in such experiments.
C. Their creativity levels remain unchanged.
D. They show a decline in logical reasoning ability.

APA Goal Outcome: 1.2, 1.4
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 14-2

21. *(p. 145)* _____ are unusually frightening dreams, that occur fairly often.
A. Lucid dreams
B. Nightmares
C. Precognitive dreams
D. Breakdown dreams

APA Goal Outcome: 1.2, 7.3
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-2

22. *(p. 147)* Sigmund Freud's theory that dreams represent unconscious desires that dreamers want to see fulfilled is known as _____.
A. unconscious wish fulfillment theory
B. expectation fulfillment theory of dreaming
C. dreams-for-survival theory
D. activation-synthesis theory

APA Goal Outcome: 1.2, 2.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-2

23. *(p. 147)* According to Freud, the _____ content of dreams is the "disguised" meanings of dreams, hidden by more obvious subjects.
A. evident
B. manifest
C. latent
D. apparent

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-2

24. *(p. 147)* According to Freud, the _____ content of dreams refers to the apparent story line of dreams.
A. dormant
B. manifest
C. latent
D. vestigial

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-2

25. *(p. 147)* Which of the following psychologists is correctly matched with a theory of the function of dreams?
A. Freud— unconscious wish-fulfillment theory
B. Hobson—dreams-for-survival theory
C. Hobson— expectation fulfillment theory of dreaming
D. Freud—activation-synthesis theory

APA Goal Outcome: 1.2, 1.4
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 14-2

26. *(p. 147)* Esther dreams that she is flying in an airplane. Esther's psychoanalyst suggests that such a dream represents a hidden desire for sexual intercourse. Which of the following statements is FALSE?
A. Flying is a symbol.
B. Flying is the latent content.
C. Flying is the manifest content.
D. Flying is the true subject of the dream.

APA Goal Outcome: 1.2, 1.4
Bloom's Taxonomy: Apply
Difficulty: Medium
Learning Outcome: 14-2

27. *(p. 147-148)* The manifest content of a dream:
A. consists of symbols.
B. is the dream you remember having.
C. is the underlying meaning of a dream.
D. is the hidden by more obvious subjects.

APA Goal Outcome: 1.2
Bloom's Taxonomy: Understand
Difficulty: Easy
Learning Outcome: 14-2

28. *(p. 148)* According to the _____ dreams permit us to reconsider and reprocess during sleep information that is critical for our daily survival.
A. unconscious wish fulfillment theory
B. expectation fulfillment theory of dreaming
C. dreams-for-survival theory
D. activation-synthesis theory

APA Goal Outcome: 1.2, 2.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-2

29. *(p. 148)* In the _____, dreams represent concerns about our daily lives, illustrating our uncertainties, indecisions, ideas, and desires.
A. unconscious wish fulfillment theory
B. expectation fulfillment theory of dreaming
C. dreams-for-survival theory
D. activation-synthesis theory

APA Goal Outcome: 1.2, 2.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-2

30. *(p. 148)* Dr. Gremillion argues that dreams function to focus on and consolidate memories. They represent concerns about our daily lives, illustrating our uncertainties, indecisions, ideas, and desires. Dr. Gremillion subscribes to the _____ theory of the function of dreams.
A. wish-fulfillment
B. dreams-for-survival
C. activation-synthesis
D. symbolic-meaning

APA Goal Outcome: 1.2
Bloom's Taxonomy: Apply
Difficulty: Medium
Learning Outcome: 14-2

31. *(p. 149)* The _____ focuses on the random electrical energy that the brain produces during REM sleep, possibly as a result of changes in the production of particular neurotransmitters.
A. unconscious wish fulfillment theory
B. expectation fulfillment theory of dreaming
C. dreams-for-survival theory
D. activation-synthesis theory

APA Goal Outcome: 1.2, 2.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-2

32. *(p. 149)* Which of the following alternatives best expresses the relationship between the activation information modulation (AIM) and activation-synthesis theories of dreaming?
A. Activation information modulation (AIM) theory is a competitor to activation-synthesis theory.
B. Activation-synthesis theory is part of the activation information modulation (AIM) theory.
C. Activation-synthesis theory has been refined by the activation in formation modulation
D. (AIM) theory.
E. Activation information modulation (AIM) theory was replaced by activation-synthesis theory.

APA Goal Outcome: 1.2
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 14-2

33. *(p. 149)* According to activation information modulation (AIM) theory, dreams are initiated in the brain's:
A. pons.
B. medulla.
C. prefrontal cortex.
D. amygdale.

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-2

34. *(p. 149)* Which figure best approximates the proportion of people afflicted by insomnia?
A. 1/5
B. 1/4
C. 1/3
D. 1/2

APA Goal Outcome: 1.2, 4.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-3

35. *(p. 149-150)* Which sleep disturbance is correctly matched with its description?
A. Sleep apnea— difficulty breathing during sleep
B. Narcolepsy—sudden awakenings accompanied by extreme fear, panic, and strong physiological arousal.
C. Night terrors—sudden sleep during waking consciousness
D. Insomnia—temporary paralysis of the body before or after sleep

APA Goal Outcome: 1.2, 4.2
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 14-3

36. *(p. 150)* _____ is a condition in which a person has difficulty breathing while sleeping.
A. Bruxism
B. Narcolepsy
C. Night terror
D. Sleep apnea

APA Goal Outcome: 1.2, 4.4
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-3

37. *(p. 150)* According to the text, _____ may play a role in sudden infant death syndrome (SIDS).
A. sleep apnea
B. narcolepsy
C. bruxism
D. insomnia

APA Goal Outcome: 1.2, 4.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-3

38. *(p. 150)* _____ is/are sudden awakenings from non-REM sleep that is accompanied by extreme fear, panic, and strong physiological arousal.
A. Bruxism
B. Narcolepsy
C. Night terrors
D. Sleep apnea

APA Goal Outcome: 1.2, 4.4
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-3

39. *(p. 150)* Night terrors occur during _____ sleep.
A. stage 4
B. REM
C. stage 2
D. stage 1

APA Goal Outcome: 1.2, 4.4
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-3

40. *(p. 150)* Four-year old DeMarcus falls asleep shortly after his 8:30 p.m. bedtime. At about 9:45, he suddenly sits up in bed, breathing rapidly and appearing to be in a state of sheer panic. DeMarcus is experiencing:
A. bruxism.
B. a narcoleptic attack.
C. night terrors.
D. sleep apnea.

APA Goal Outcome: 1.2, 4.4
Bloom's Taxonomy: Apply
Difficulty: Medium
Learning Outcome: 14-3

41. *(p. 150)* _____ refers to uncontrollable sleeping that occurs for short periods while a person is awake.
A. Bruxism
B. Narcolepsy
C. Night terror
D. Sleep apnea

APA Goal Outcome: 1.2, 4.4
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-3

42. *(p. 150)* Sleepwalking and sleep talking both occur during _____ of sleep.
A. stage 4
B. stage 3
C. stage 2
D. stage 1

APA Goal Outcome: 1.2, 4.4
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-3

43. *(p. 151)* Biological processes occurring on a cycle of approximately 24 hours are termed as:
A. biorhythms.
B. diurnal rhythms.
C. circadian rhythms.
D. primal rhythms.

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-3

44. *(p. 151)* The brain's _____ nucleus regulates the body's circadian rhythms.
A. suprachiasmatic
B. intralaminar
C. ventromedial
D. lateral geniculate

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-3

45. *(p. 152)* Which of the following is true of daydreams?
A. They are under one's control to a greater extent than dreams that occur during sleep.
B. They are less tied to the immediate environment than dreams that occur during sleep.
C. They primarily include sexual content.
D. The brain is inactive during daydreaming.

APA Goal Outcome: 1.2
Bloom's Taxonomy: Understand
Difficulty: Easy
Learning Outcome: 14-4

46. *(p. 152)* Empirical research reveals that on average, people spend about _____ of their time daydreaming.
A. 10%
B. 25%
C. 35%
D. 50%

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-4

47. *(p. 153)* Which of the following solutions will help overcome insomnia?
A. Trying to sleep even when one is not tired
B. Taking sleeping pills
C. Exercising during the day
D. Drinking caffeine after lunch

APA Goal Outcome: 1.2, 4.4, 9.3
Bloom's Taxonomy: Understand
Difficulty: Easy
Learning Outcome: 14-3

48. *(p. 153)* Irv can't sleep, so he makes himself a cup of warm milk. Will this work?
A. No. He should instead buy some sleeping pills from the drug store.
B. No. It is just a myth that milk induces sleep.
C. Yes. Milk contains tryptophan, which promotes sleep.
D. Yes, but it will disrupt his sleep cycle.

APA Goal Outcome: 1.2, 4.4, 9.3
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 14-4

49. *(p. 153)* Which of the following is NOT a recommended solution if one has trouble sleeping?
A. Drinking warm milk
B. Taking sleeping pills
C. Exercising during the day
D. Avoiding caffeine

APA Goal Outcome: 1.2, 4.4, 9.3
Bloom's Taxonomy: Understand
Difficulty: Easy
Learning Outcome: 14-4

50. *(p. 155)* _____ is a trancelike state of heightened susceptibility to the suggestions of others.
A. Animal magnetism
B. Spiritualism
C. Hypnosis
D. Paralysis

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 15-1

51. *(p. 155)* Which of the following is the first step in the hypnosis process?
A. The hypnotist explains what is going to happen.
B. The hypnotist tells the person to concentrate on a specific object or image.
C. A person is made comfortable in a quiet environment.
D. The subject is brought to a highly relaxed state, when the hypnotist may make suggestions that the person interprets as being produced by hypnosis.

APA Goal Outcome: 1.2, 3.1
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 15-1

52. *(p. 155)* Which of the following notions regarding hypnosis is false?
A. People do not engage in self-destructive acts when hypnotized.
B. People are capable of lying when hypnotized.
C. People cannot be induced to perform antisocial behaviors when hypnotized.
D. People lose all will of their own.

APA Goal Outcome: 1.2, 3.1
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 15-1

53. *(p. 155)* Which of the following notions regarding hypnosis is TRUE?
A. People may be induced to engage in self-destructive acts when hypnotized.
B. People cannot be hypnotized against their will.
C. People may be induced to perform antisocial behaviors when hypnotized.
D. People always tell the truth when they are hypnotized.

APA Goal Outcome: 1.2, 3.1
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 15-1

54. *(p. 155)* Approximately what percentage of the population cannot be hypnotized at all?
A. 5%-20%
B. 70%-90%
C. 30%-40%
D. 50%-80%

APA Goal Outcome: 1.2, 3.1
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 15-1

55. *(p. 155)* Approximately what percentage of the population can be very easily hypnotized?
A. 5%
B. 15%
C. 30%
D. 50%

APA Goal Outcome: 1.2, 3.1
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 15-1

56. *(p. 155)* To which of the following traits does an individual's susceptibility to hypnosis seem related?
A. The tendency to defer to others' wishes
B. The tendency to seek out new experiences
C. The tendency to become absorbed in one's activities
D. The tendency toward low self-confidence

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 15-1

57. *(p. 156)* Which of the following statements reflects a difference between waking consciousness and hypnosis?
A. The brain's electrical activity differs between waking and hypnotic states of consciousness.
B. Many physiological differences distinguish the hypnotic state from waking consciousness.
C. Memory of childhood events is much more accurate under hypnosis than in the waking state.
D. There is an increased ability to construct images under hypnosis than in the waking state.

APA Goal Outcome: 1.2
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 15-1

58. *(p. 156)* According to famed hypnosis researcher _____
A. Hilgard, hypnosis causes a division of consciousness.
B. Hilgard, hypnosis is really no different than waking consciousness.
C. Hobson, hypnosis causes a division of consciousness.
D. Hobson, hypnosis is really no different than waking consciousness.

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 15-1

59. *(p. 156)* According to hypnosis researcher Ernest Hilgard, hypnosis brings about a dissociation of consciousness into two simultaneous components. This is known as _____.
A. divided consciousness
B. complementary consciousness
C. simultaneous consciousness
D. binary consciousness

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 15-1

60. *(p. 157)* Hypnosis can help you:
A. relive experiences you had as a very small child.
B. improve athletic performance.
C. recall memories you've long forgotten.
D. stop drug and alcohol abuse.

APA Goal Outcome: 1.2, 3.1, 9.2
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 15-1

61. *(p. 157)* In which of the following applications has hypnosis proven to be least successful?
A. Stopping alcohol and drug abuse
B. Treating psychological disorders
C. Improving athletic performance
D. Relieving pain

APA Goal Outcome: 1.2, 4.2
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 15-1

62. *(p. 157)* When traditional practitioners of the ancient Eastern religion of Zen Buddhism want to achieve greater spiritual insight, they turn to a technique that has been used for centuries to alter their state of consciousness. This technique is called _____.
A. meditation
B. hypnosis
C. mysticism
D. mesmerism

APA Goal Outcome: 1.2, 8.1
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 15-2

63. *(p. 157)* _____ is a learned technique for refocusing attention that brings about an altered state of consciousness.
A. Mysticism
B. Hypnosis
C. Mesmerism
D. Meditation

APA Goal Outcome: 1.2, 8.1
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 15-2

64. *(p. 158)* How often and for how long should meditation be practiced to realize its benefits?
A. Twice weekly, for 20 minutes at a time
B. Twice daily, for 20 minutes at a time
C. Daily, for several hours at a stretch
D. Once a month for two hours

APA Goal Outcome: 4.4, 9.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 15-2

65. *(p. 158)* Which of the following statements is most accurate regarding potential cross-cultural variation in the attempt to alter consciousness?
A. The attempt to alter consciousness appears in some cultures but not in others; among those cultures in which it appears, though, the means to alter consciousness are much the same.
B. The attempt to alter consciousness appears to be universal, but the particular means to do so vary from culture to culture.
C. The attempt to alter consciousness appears to be universal, as are the particular means to do so.
D. The attempt to alter consciousness appears in some cultures but not in others; among those cultures in which it appears, the means to alter consciousness vary dramatically.

APA Goal Outcome: 1.2, 5.5, 8.2
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 15-2

66. *(p. 159)* Which of the following is true of altered state of consciousness?
A. People start thinking logically.
B. People feel a sense of ineffability.
C. People gain self-control.
D. People's sense of time becomes more distinct.

APA Goal Outcome: 1.2
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 15-2

67. *(p. 159)* Which of the following statements best encapsulates the text's argument with respect to potential cultural influences on the experience of consciousness?
A. Consciousness shows some basic similarities across cultures.
B. The fundamental experience of consciousness varies across cultures.
C. There are no cross-cultural differences in the experience of consciousness.
D. There are dramatic differences between cultures in the experience of consciousness.

APA Goal Outcome: 1.2, 5.5, 8.2
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 15-2

68. *(p. 160)* _____ drugs are drugs that influence a person's emotions, perceptions, and behavior.
A. Psychoactive
B. Antiarrhythmic agent
C. Interferon
D. Antianginal

APA Goal Outcome: 1.2, 4.4
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

69. *(p. 160)* If you have ever had a cup of coffee or sipped a beer, you have taken a _____ drug.
A. psychoactive
B. Antiarrhythmic agent
C. Interferon
D. Antianginal

APA Goal Outcome: 1.2, 4.4
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

70. *(p. 160)* Since the 1970s, the number of young adolescents who begin drinking alcohol by the time they are in the 8th grade has:
A. increased by about 10%.
B. increased by nearly 33.33%.
C. decreased by about 25%.
D. remained fairly constant.

APA Goal Outcome: 1.2, 4.4
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

71. *(p. 160)* Which of the following is true about alcohol consumption in the general population since the 1970s?
A. It has increased by about 10%.
B. It has increased by nearly 33.33%.
C. It has decreased by about 25%.
D. It has stayed fairly steady.

APA Goal Outcome: 1.2, 4.4
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

72. *(p. 160)* Which of the following is not a psychoactive drug?
A. Caffeine
B. Nicotine
C. Antibiotics
D. Amphetamines

APA Goal Outcome: 1.2
Bloom's Taxonomy: Understand
Difficulty: Easy
Learning Outcome: 16-1

73. *(p. 160)* Which of the following figures most closely approximates the percentage of high school seniors who have tried an illegal drug during the past year?
A. 15%
B. 23%
C. 41%
D. 67%

APA Goal Outcome: 1.2, 4.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

74. *(p. 160)* _____ drugs are drugs that produce a biological or psychological dependence in the user so that withdrawal from them leads to a craving for the drug that, in some cases, may be nearly irresistible.
A. Antibiotic
B. Interferon
C. Addictive
D. Therapeutic

APA Goal Outcome: 1.2, 4.4
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

75. *(p. 160)* Which of the following is true about drugs?
A. Psychoactive drugs are not common is most of our lives.
B. In psychological dependence, the body becomes so accustomed to functioning in the presence of a drug that it cannot function without it.
C. In physiological dependence, people believe that they need the drug to respond to the stresses of daily living.
D. Addictive drugs produce a physiological or psychological dependence (or both) in the user.

APA Goal Outcome: 1.2, 4.4
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

76. *(p. 160)* In _____ dependence, people believe that they need the drug to respond to the stresses of daily living.
A. behavioral
B. pathological
C. psychological
D. physiological

APA Goal Outcome: 1.2, 4.4
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

77. *(p. 161)* According to a survey of 14,000 high school seniors across the United States, which of the following substances have high school seniors LEAST indulged in?
A. Marijuana
B. Alcohol
C. Cigarettes
D. Steroids

APA Goal Outcome: 1.2, 4.4
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

78. *(p. 161)* According to a survey of 14,000 high school seniors across the United States, which of the following substances have high school seniors used the most?
A. Marijuana
B. Alcohol
C. Cigarettes
D. Steroids

APA Goal Outcome: 1.2, 4.4
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

79. *(p. 162)* According to the text, the DARE program is used in approximately _____ of the school districts in the U. S.
A. 80%
B. 60%
C. 50%
D. 40%

APA Goal Outcome: 4.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

80. *(p. 162)* Assessment of the DARE program has revealed that:
A. the program is highly successful in reducing drug use over the longer term.
B. the program is not popular with school officials, parents, and politicians.
C. DARE graduates were more likely to use marijuana than was a comparison group of non graduates.
D. DARE is the only drug reduction program whose effectiveness has not been questioned.

APA Goal Outcome: 4.2, 4.3
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

81. *(p. 162)* Stimulants are drugs that:
A. cause incapacitation and inability to resist sexual assault.
B. have an arousal effect on the central nervous system, causing a rise in heart rate, blood pressure, and muscular tension.
C. slow down the nervous system.
D. increase relaxation and relieve pain and anxiety.

APA Goal Outcome: 4.2, 4.3
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

82. *(p. 162)* Which drug below is correctly matched with its class?
A. Cocaine - depressant
B. Caffeine - stimulant
C. Marijuana - depressant
D. Heroin - hallucinogen

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

83. *(p. 162)* Which category of psychoactive drugs below is correctly matched with its effects on thought and behavior?
A. Hallucinogens - slow down the nervous system.
B. Stimulants - increase the activity of the central nervous system
C. Narcotics - produce changes in sensory perception
D. Depressants - capable of producing hallucinations

APA Goal Outcome: 1.2
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 16-1

84. *(p. 162)* Which of the following statements most accurately describes the effect of caffeine and the other stimulants on the nervous system?
A. They decrease central nervous system activity.
B. They have an arousal effect on the central nervous system.
C. They cause a drop in the heart rate.
D. They increase the reaction time.

APA Goal Outcome: 1.2
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 16-1

85. *(p. 162-163)* Which of the following drugs is not a stimulant?
A. Cocaine
B. Caffeine
C. Morphine
D. Methamphetamine

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

86. *(p. 163)* Caffeine mimics the effects of a natural brain chemical called:
A. adenosine.
B. acetylcholine.
C. adrenaline.
D. dopamine.

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

87. *(p. 163)* Nicotine activates neural mechanisms similar to those activated by _____.
A. alcohol
B. heroin
C. cocaine
D. marijuana

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

88. *(p. 163)* _____ such as dexedrine and benzedrine, are popularly known as speed.
A. Barbiturates
B. Amphetamines
C. Tranquilizers
D. Hallucinogens

APA Goal Outcome: 1.2, 4.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

89. *(p. 163)* According to the text, _____ is currently the most dangerous street drug in the United States.
A. crack cocaine
B. heroin
C. Ecstasy
D. methamphetamine

APA Goal Outcome: 1.2, 4.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

90. *(p. 163)* Fawn consumed a large amount of the most popular street drug at a party. It gave her a sense of energy and alertness although she also became anxious and irritable. Which of the following drugs has she most likely consumed?
A. Heroin
B. Rohypnol
C. Marijuana
D. Methamphetamine

APA Goal Outcome: 1.2
Bloom's Taxonomy: Apply
Difficulty: Medium
Learning Outcome: 16-1

91. *(p. 164)* Which of the following withdrawal symptoms are related to the use of stimulants?
A. Decreased appetite, weight loss; women may note menstrual changes
B. Acute anxiety, hallucinations, seizures, possible death
C. Sneezing, diarrhea, lower back pain, watery eyes, runny nose
D. Apathy, general fatigue, prolonged sleep

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Medium
Learning Outcome: 16-1

92. *(p. 164)* Symptoms such as anxiety, vomiting, sneezing, diarrhea, lower back pain, watery eyes, runny nose, yawning, irritability, tremors, panic, chills and sweating, and cramps are related to the use of _____.
A. stimulants
B. depressants
C. narcotics
D. steroids

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

93. *(p. 165)* The effects of using steroids are:
A. acne, mood swings, masculine traits in women and feminine traits in men.
B. euphoria, relaxed inhibitions, nightmares, and disoriented behavior.
C. weakness, restlessness, nausea and vomiting, headaches, and nightmares.
D. apathy, difficulty in concentration, slowed speech, decreased physical activity, and drooling.

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

94. *(p. 165)* The use of _____ results in euphoria, relaxed inhibitions, heightened sense of oneself and insight, and disoriented behavior.
A. hallucinogens
B. depressants
C. narcotics
D. steroids

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

95. *(p. 164)* Cocaine exerts its pleasurable effects in the brain by:
A. mimicking the effects of dopamine.
B. blocking the release of serotonin.
C. blocking the reabsorption of leftover dopamine.
D. facilitating the release of endorphins.

APA Goal Outcome: 1.2
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 16-1

96. *(p. 165)* Depressants are drugs that:
A. lead to a sense of energy and alertness, and decreased appetite,
B. have an arousal effect on the central nervous system, causing a rise in heart rate, blood pressure, and muscular tension.
C. slow down the nervous system.
D. increase relaxation and relieve pain and anxiety.

APA Goal Outcome: 4.2, 4.3
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

97. *(p. 165)* _____ is the most widely used depressant in the United States.
A. Xanax
B. Alcohol
C. Marijuana
D. Valium

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

98. *(p. 166)* Which figure best approximates the proportion of college students who have had an alcoholic drink within the past month?
A. 35%
B. 50%
C. 75%
D. 60%

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

99. *(p. 166)* For men, binge drinking is defined as having _____ drinks in one sitting
A. one to two
B. two to three
C. three to four
D. five or more

APA Goal Outcome: 1.3, 2.4
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

100. *(p. 166)* Approximately what proportion of female college students report having been the target of an unwanted sexual advance by a drunken classmate?
A. 1 in 3
B. 1 in 4
C. 1 in 2
D. 1 in 5

APA Goal Outcome: 1.2, 4.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

101. *(p. 166)* Based on data reported in the text, nearly _____% of male college students binge drink, while _____% do not drink at all.
A. 35; 20
B. 35; 35
C. 50; 20
D. 50; 35

APA Goal Outcome: 1.2, 4.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

102. *(p. 166-167)* Of the ethnic groups in the United States, the rate of alcoholism is lowest among _____.
A. East Asians
B. Caucasians
C. Latin Americans
D. African Americans

APA Goal Outcome: 1.2, 4.2, 5.5, 8.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

103. *(p. 166-167)* Jordan is a Caucasian child raised by his birth parents in the United States. Adia was born in Africa. She lives with her adoptive parents in the U.S. Hua is a Vietnamese boy living with his biological parents in a tight-knit community of recent Vietnamese immigrants in an American city. All else being equal, what might we predict regarding the relative likelihood of these three children developing a problem with alcohol later in life?
A. The three children are equally likely to develop a problem with alcohol. Ethnic differences in alcohol abuse are negligible.
B. Jordan and Adia are more likely to develop a problem with alcohol than is Hua.
C. Hua is more likely to develop a problem with alcohol than are either Jordan or Adia.
D. Jordan is less likely to develop a problem with alcohol than are either Adia or Hua.

APA Goal Outcome: 1.2, 4.2, 5.5, 8.2
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 16-1

104. *(p. 167)* Voluntary motor behavior becomes affected when one's blood alcohol content level reaches:
A. .05.
B. .08.
C. .10.
D. .20.

APA Goal Outcome: 1.2, 4.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

105. *(p. 168)* According to the text, about one in _____ American adults has a drinking problem.
A. 6
B. 8
C. 13
D. 20

APA Goal Outcome: 1.2, 4.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

106. *(p. 168)* The "date rape" drug is _____; it is a _____.
A. rohypnol; depressant
B. rohypnol; narcotic
C. phenobarbital; stimulant
D. phenobarbital; narcotic

APA Goal Outcome: 1.2, 4.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

107. *(p. 168)* Narcotics, such as heroin, are drugs that:
A. are capable of producing hallucinations, or changes in the perceptual process.
B. have an arousal effect on the central nervous system, causing a rise in heart rate, blood pressure, and muscular tension.
C. slow down the nervous system.
D. increase relaxation and relieve pain and anxiety.

APA Goal Outcome: 4.2, 4.3
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

108. *(p. 168)* Which of the following is a narcotic?
A. Cocaine
B. Rohypnol
C. Morphine
D. Methamphetamine

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

109. *(p. 168)* Methadone is used to treat addiction to:
A. cocaine.
B. alcohol.
C. heroin.
D. rohypnol

APA Goal Outcome: 1.2, 4.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

110. *(p. 169)* Hallucinogens are drugs that:
A. include dope and grass that are capable of producing changes in the perceptual process.
B. have an arousal effect on the central nervous system, causing a rise in heart rate, blood pressure, and muscular tension.
C. slow down the nervous system.
D. reduce appetite.

APA Goal Outcome: 4.2, 4.3
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

111. *(p. 169)* The most common hallucinogen in widespread use today is _____.
A. lysergic acid diethylamide
B. marijuana
C. MDMA
D. heroin

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

112. *(p. 169)* Which of the following figures best approximates the percentage of American high school seniors who report having used marijuana in the last year?
A. 11%
B. 32%
C. 56%
D. 75%

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

113. *(p. 170)* MDMA and lysergic acid diethylamide are _____.
A. stimulants
B. hallucinogens
C. depressants
D. narcotics

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

114. *(p. 170)* LSD and Ecstasy influence the operation of the neurotransmitter _____ in the brain.
A. serotonin
B. norepinephrine
C. endorphins
D. acetylcholine

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

115. *(p. 170)* Continued Ecstasy use may be associated with:
A. decreased testosterone production.
B. flashbacks.
C. memory difficulties.
D. lung damage.

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

Fill in the Blank Questions

116. *(p. 140)* Abby is alert and focused as she takes notes in a college class; she is experiencing _____ consciousness.
waking

APA Goal Outcome: 1.2
Bloom's Taxonomy: Apply
Difficulty: Easy
Learning Outcome: 14-1

117. *(p. 141)* Ben is participating in a sleep study in the laboratory. The EEG shows relatively rapid, low-amplitude brain waves. Ben is in stage _____ sleep.
1

APA Goal Outcome: 1.2
Bloom's Taxonomy: Apply
Difficulty: Medium
Learning Outcome: 14-2

118. *(p. 144)* Callie pulled an all-nighter to finish a term paper. The next night, she may sleep only slightly longer than she usually does, but she will spend a significantly greater percentage of the night in REM sleep, a phenomenon known as _____.
(REM) rebound

APA Goal Outcome: 1.2, 4.4
Bloom's Taxonomy: Apply
Difficulty: Medium
Learning Outcome: 14-2

119. *(p. 147)* According to Freud, the apparent story line of dreams is the _____ content of dreams.
manifest

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-2

120. *(p. 149)* According to Hobson's _____ theory, dreams begin in random neural activity.
activation-synthesis

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Medium
Learning Outcome: 14-2

121. *(p. 150)* Francine is sleepy all day; she wakes briefly several hundred times each night and has difficulty breathing while sleeping. She is likely suffering from _____.
sleep apnea

APA Goal Outcome: 1.2, 4.2
Bloom's Taxonomy: Apply
Difficulty: Medium
Learning Outcome: 14-3

122. *(p. 150)* _____ is uncontrollable sleeping that occurs for short periods while a person is awake.
Narcolepsy

APA Goal Outcome: 1.2, 4.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-3

123. *(p. 151)* Circadian rhythms are regulated by the _____ in the hypothalamus.
suprachiasmatic nucleus

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-3

124. *(p. 151)* _____ is a form of severe depression in which feelings of despair and hopelessness increase during the winter and lift during the rest of the year.
Seasonal affective disorder

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-3

125. *(p. 153)* Milk helps us sleep because it contains the chemical _____.
tryptophan

APA Goal Outcome: 4.4
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 14-4

126. *(p. 155)* A trancelike susceptibility to suggestion is a characteristic of _____.
hypnosis

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 15-1

127. *(p. 159)* The inability to understand an experience rationally or describe it in words is known as _____.
ineffability

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Medium
Learning Outcome: 15-2

128. *(p. 160)* _____ drugs influence emotion, perception, and behavior.
Psychoactive

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

129. *(p. 162)* After lunch, Katya enjoys a cup of coffee and a cigarette. Coffee and cigarettes are examples of _____.
stimulants

APA Goal Outcome: 1.2
Bloom's Taxonomy: Apply
Difficulty: Medium
Learning Outcome: 16-1

130. *(p. 163)* Dexedrine, benzedrine, and crystal methamphetamine are examples of _____.
amphetamines

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

131. *(p. 166)* Lance has 6 drinks one night. He has engaged in _____ drinking.
binge

APA Goal Outcome: 1.2, 2.4
Bloom's Taxonomy: Apply
Difficulty: Medium
Learning Outcome: 16-1

132. *(p. 165)* Alcohol is a member of a broad class of drugs termed _____.
depressants

APA Goal Outcome: 1.2
Bloom's Taxonomy: Understand
Difficulty: Easy
Learning Outcome: 16-1

133. *(p. 165)* Nikki's doctor prescribes a depressant to help her relax and get some sleep at night. Most likely, he prescribed a(n) _____.
barbiturate

APA Goal Outcome: 4.4
Bloom's Taxonomy: Apply
Difficulty: Medium
Learning Outcome: 16-1

134. *(p. 170)* MDMA is more commonly known as _____.
Ecstasy

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

135. *(p. 170)* According to the text, Ecstasy and LSD influence the action of the neurotransmitter _____.
serotonin

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Easy
Learning Outcome: 16-1

Essay Questions

136. *(p. 141-142)* Imagine you are a research assistant in a sleep laboratory. You are required to keep a log of sleeping participants' brain, physiological, and general body activity every quarter-hour during the night. One typical sleeper falls asleep at 12:00 a.m. Show the portion of the log beginning at 12:15 and ending at 1:45 a.m. There should be seven brief entries, each corresponding to a successive quarter-hour (e.g., 1:15 a.m.) during this interval.

The answer should resemble the following:

12:15 a.m. The sleeper is moving from stage 1 to stage 2 sleep. The EEG waves change from high-frequency, low-amplitude, complex waveforms to simpler, lower-frequency forms. Occasionally, spiky wave patterns—sleep spindles—appear.
12:30 a.m. The sleeper has entered stage 3 sleep. The brain waves become lower in frequency and higher in amplitude.
12:45 a.m. The sleeper has now entered stage 4 sleep. The brain waves become even lower in frequency and higher in amplitude than in stage 3. The sleeper is least responsive to outside stimulation during this period.
1:00 a.m. The sleeper has re-entered stage 3 sleep. The brain waves begin increasing in frequency and decreasing in amplitude.
1:15 a.m. The sleeper has reentered stage 2 sleep. The brain waves continue increasing in frequency and decreasing in amplitude. Sleep spindles reappear.
1:30 a.m. The sleeper has entered REM sleep. Rapid eye movements begin. The sleeper's heart rate increases and becomes irregular. Blood pressure increases. Respiration speeds up. Male sleepers have erections. If wakened, the sleeper reports a dream. Brain waves become complex, low amplitude, high frequency.
1:45 a.m. The sleeper is leaving REM sleep and reentering stage 2 sleep. Wave forms become less complex. Eye movements cease. Heart rate and respiration slow down and become more regular. Sleep spindles begin to reappear.

APA Goal Outcome: 1.2, 4.4
Bloom's Taxonomy: Apply
Difficulty: Medium
Learning Outcome: 14-1

137. *(p. 143-144)* Contrast NREM and REM sleep. Why is there a "paradox" in REM sleep? Discuss dreams and REM vs. NREM sleep.

Several times a night, when sleepers have cycled back to a shallower state of sleep, something curious happens. Their heart rate increases and becomes irregular, their blood pressure rises, and their breathing rate increases. Most characteristic of this period is the back-and-forth movement of their eyes, as if they were watching an action-filled movie. This period of sleep is called rapid eye movement, or REM sleep, and it contrasts with stages 1 through 4, which are collectively labeled non-REM (or NREM) sleep. REM sleep occupies a little more than 20% of adults' total sleeping time. Paradoxically, while all this activity is occurring, the major muscles of the body appear to be paralyzed. In addition, and most important, REM sleep is usually accompanied by dreams, which whether or not people remember them—are experienced by everyone during some part of their night's sleep. Although some dreaming occurs in non-REM stages of sleep, dreams are most likely to occur in the REM period, where they are the most vivid and easily remembered. There is good reason to believe that REM sleep plays a critical role in everyday human functioning. People deprived of REM sleep—by being awakened every time they begin to display the physiological signs of that stage—show a rebound effect when allowed to rest undisturbed.

APA Goal Outcome: 1.2, 4.4
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 14-1

138. *(p. 144)* Briefly discuss the reasons for needing sleep.

One explanation, based on an evolutionary perspective, suggests that sleep permitted our ancestors to conserve energy at night, a time when food was relatively hard to come by. Consequently, they were better able to forage for food when the sun is up.
A second explanation for why we sleep is that sleep restores and replenishes our brains and bodies. For instance, the reduced activity of the brain during non-REM sleep may give neurons in the brain a chance to repair themselves. Furthermore, the onset of REM sleep stops the release of neurotransmitters called monoamines and so permits receptor cells to get some necessary rest and to increase their sensitivity during periods of wakefulness. Finally, sleep may be essential, because it assists physical growth and brain development in children. For example, the release of growth hormones is associated with deep sleep.

APA Goal Outcome: 1.2, 4.4
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 14-1

139. *(p. 147-148)* The text states that there are common elements or themes that occur in everyone's dreams. Why do we dream about what we dream about? Answer this question from the perspective of (a) wish-fulfillment and (b) dreams-for-survival theory. Provide illustrative examples.

Wish-fulfillment theory—A psychodynamic perspective on the meaning of dreams associated with Sigmund Freud. Dreams represent unconscious wishes. Because unconscious desires are often sexual or aggressive in nature, they are threatening to the individual. These desires are therefore disguised in our dreams: the dream we experience—the manifest content—is only a symbolic representation of its true meaning, the latent content. The latent content often relates to unfulfilled sexual or aggressive urges; thus much of our dream imagery is seen as symbolic of sexual intercourse. One example is provided by dreams in which the dreamer flies.
Dreams-for-survival theory—A contemporary theory of the meaning of dreams stemming from both evolutionary and cognitive psychology. According to this perspective, dreaming evolved as a mechanism to facilitate learning, memory, and information processing, allowing cognitive work to proceed even during those portions of the day in which we are not actively engaged with the world. Dreams reflect daily concerns, anxieties, and issues arising in our day-to-day lives; they do not reflect hidden, deep-seated, unconscious urges. A common example is the dream that we have all had regarding being completely unprepared for an examination. Dreams also function to consolidate memories, essentially allowing us to continue to "learn" while we are asleep. Much of our dreams reflect recent experiences we have had.

APA Goal Outcome: 1.2, 1.4
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 14-2

140. *(p. 149)* Define what the activation-synthesis theory is. Make sure to include a discussion of AIM theory and how it relates to activation-synthesis theory. How does theory explain dreaming?

The activation-synthesis theory focuses on the random electrical energy that the brain produces during REM sleep, possibly as a result of changes in the production of particular neurotransmitters. This electrical energy randomly stimulates memories stored in the brain. Because we have a need to make sense of our world even while asleep, the brain takes these chaotic memories and weaves them into a logical story line, filling in the gaps to produce a rational scenario.
Activation-synthesis theory has been refined by the activation in formation modulation
(AIM) theory. According to AIM, dreams are initiated in the brain's pons, which sends random signals to the cortex. Areas of the cortex that are involved in particular waking behaviors are related to the content of dreams. For example, areas of the brain related to vision are involved in the visual aspects of the dream, while areas of the brain related to movement are involved in aspects of the dream related to motion.
Activation-synthesis and AIM theories do not entirely reject the view that dreams reflect unconscious wishes. They suggest that the particular scenario a dreamer produces is not random but instead is a clue to the dreamer's fears, emotions, and concerns. Hence, what starts out as a random process culminates in something meaningful.

APA Goal Outcome: 1.2, 4.4, 9.2, 9.3
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 14-2

141. *(p. 150)* Write brief vignettes or case studies of three different individuals, each suffering from a different sleep disturbance. Include demographic information where relevant.

Students' answers may vary.
The answer should resemble the following:

Case study 1: *Sleep apnea*. Arthur is always extremely fatigued during the day. Observation in a sleep lab reveals that Arthur sleeps fitfully, waking up several hundred times during the night, as he appears to have trouble breathing while asleep.
Case study 2: *Night terrors*. Bethany is a 5-year-old child. Occasionally, she wakes up in the middle of the night in an apparent state of sheer panic, although she cannot say why, indicating that these episodes do not occur during REM sleep. She usually settles back to sleep quite easily following one of these episodes.
Case study 3: *Narcolepsy*. Mr. Cohen suddenly falls asleep for brief periods in the middle of the day, during virtually any of his customary activities—at work, while gardening, during exercise, and so on. He appears to fall directly into REM sleep during these episodes. A family history indicates that an uncle and a grandparent experienced similar symptoms.

APA Goal Outcome: 4.2, 9.2
Bloom's Taxonomy: Apply
Difficulty: Medium
Learning Outcome: 14-3

142. *(p. 153)* You are suffering from insomnia. Identify three practices you might adopt or changes you might make to your daily routine to help you sleep better.

Students' answers may vary.

The answer should include three of the following. Ideally, the student should personalize his or her answer, relating it to his or her existing sleep hygiene practices.
Exercise. Exercise at least 6 hours before bedtime facilitates relaxation, as does systematic relaxation and meditation techniques. Students who work out after the school day, after dinner, or after work might consider switching to morning workouts.
Avoid naps. It helps to be tired when one goes to bed.
Regular bedtime. A regular bedtime helps your body set its internal clock. Staying up very late on weekends or occasionally on school nights to "cram" or finish assignments should be avoided.
Avoid caffeine after noon. Caffeine can exert its effects over an 8- to 12-hour period. Switching to caffeine-free soft drinks in the afternoon and evening might help.
Drink warm milk at bedtime. Warm milk contains tryptophan, which facilitates sleep.
Avoid sleeping pills. While it may be tempting to resort to the quick relief provided by pills, they tend to distort the sleep cycle, leading to a deficit of REM sleep, which can make you feel even more tired.
Try not to sleep. Associate your bed only with sleep. If you cannot sleep, get up and do something elsewhere. Do not use your bed to engage in such activities as watching TV or doing homework.

APA Goal Outcome: 1.2, 4.4, 9.3
Bloom's Taxonomy: Apply
Difficulty: Medium
Learning Outcome: 14-3

143. *(p. 157)* Spotting an advertisement touting hypnosis as a way to quit smoking cigarettes, your friend denounces hypnosis as quackery. Defend the practice of hypnosis by citing three successful applications of the technique.

Students' answers may vary.

Three of the following successful applications of hypnosis should be described.
Controlling pain. Chronic pain patients can be given the hypnotic suggestion that their pain is reduced or absent; they can also be taught to self-hypnotize, allowing them to relieve pain or gain a sense of control over their pain. Hypnosis has been applied successfully to the reduction of pain during childbirth and during dental procedures.
Reducing smoking. Hypnosis has sometimes helped people quit smoking through suggestions that the smell and taste of cigarettes are unpleasant.
Treating psychological disorders. Hypnosis can assist relaxation, decrease anxiety, modify self-defeating thoughts, and improve self-efficacy. It is thus a useful addition to cognitive-behavioral therapy.
Assisting in law enforcement. Sometimes, witnesses and victims can better recall the details of a crime when they are hypnotized. However, this effect is not consistent, and the forensic application of hypnosis remains controversial.
Improving athletic performance. Some baseball players have used hypnosis to improve their concentration when batting, with considerable success.

APA Goal Outcome: 3.1, 4.2, 4.4
Bloom's Taxonomy: Apply
Difficulty: Medium
Learning Outcome: 15-1

144. *(p. 157)* Describe what meditation is and how it is currently viewed by researchers. What evidence is there that one could use mediation to replace drugs for relaxation?

Meditation is a learned technique for refocusing attention that brings about an altered state of consciousness. Meditation typically consists of the repetition of a mantra —a sound, word, or syllable—over and over. In some forms of meditation, the focus is on a picture, flame, or specific part of the body. Regardless of the nature of the particular initial stimulus, the key to the procedure is concentrating on it so thoroughly that the meditator becomes unaware of any outside stimulation and reaches a different state of consciousness.
After meditation, people report feeling thoroughly relaxed. They sometimes relate that they have gained new insights into themselves and the problems they are facing. The long-term practice of meditation may even improve health because of the biological changes it produces. For example, during meditation, oxygen usage decreases, heart rate and blood pressure decline, and brain-wave patterns change.

APA Goal Outcome: 1.4
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 15-2

145. *(p. 159)* Briefly discuss the cross-cultural routes to altered states of consciousness.

Some scholars suggest that the quest to alter consciousness represents a basic human desire. Whether or not we accept such an extreme view, variations in states of consciousness clearly share some basic characteristics across a variety of cultures. One is an alteration in thinking, which may become shallow, illogical, or otherwise different from normal. In addition, people's sense of time can become disturbed, and their perceptions of the physical world and of themselves may change.
They may lose self-control, doing things that they would never otherwise do. Finally, they may feel a sense of ineffability—the inability to understand an experience rationally or describe it in words.
Of course, realizing that efforts to produce altered states of consciousness are widespread throughout the world's societies does not answer a fundamental question:
Is the experience of unaltered states of consciousness similar across different cultures?
Because humans share basic biological commonalties in the ways their brains and bodies are wired, we might assume that the fundamental experience of consciousness is similar across cultures. As a result, we could suppose that consciousness shows some basic similarities across cultures. However, the ways in which certain aspects of consciousness are interpreted and viewed show substantial differences from culture to culture. For example, people in disparate cultures view the experience of the passage of time in varying ways. For instance, Arabs appear to perceive the passage of time more slowly than North Americans.

APA Goal Outcome: 1.4
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 15-2

146. *(p. 160)* Write a note on psychoactive drugs and addictive drugs.

Psychoactive drugs influence a person's emotions, perceptions, and behavior. Yet even this category of drugs is common in most of our lives.
If you have ever had a cup of coffee or sipped a beer, you have taken a psychoactive drug. A large number of individuals have used more potent—and more dangerous—psychoactive drugs than coffee and beer; for instance, surveys find that 41% of high school seniors have used an illegal drug in the last year. In addition, 30% report having been drunk on alcohol. The figures for the adult population are even higher (Johnston et al., 2010).
Addictive drugs produce a physiological or psychological dependence (or both) in the user, and withdrawal from them leads to a craving for the drug that, in some cases, may be nearly irresistible. In physiological dependence, the body becomes so accustomed to functioning in the presence of a drug that it cannot function without it. In psychological dependence, people believe that they need the drug to respond to the stresses of daily living. Although we generally associate addiction with drugs such as heroin, everyday sorts of drugs, such as caffeine (found in coffee) and nicotine (found in cigarettes), have addictive aspects as well.

APA Goal Outcome: 1.4
Bloom's Taxonomy: Understand
Difficulty: Medium
Learning Outcome: 16-1

147. *(p. 160)* Describe the different ways in which psychoactive drugs can enhance or impede the activity of neurotransmitters, providing examples where possible.

Students' examples may vary.

The answer should include the following information:

Drugs may block or enhance the release of a neurotransmitter, block the receipt or reuptake of a neurotransmitter (e.g.: cocaine inhibits the reuptake of dopamine), or mimic the effects of a neurotransmitter (e.g.: caffeine mimics adenosine; heroin and morphine mimic endorphins).

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Medium
Learning Outcome: 16-1

148. *(p. 164-165)* List three classes of drugs. Identify two drugs in each class and describe their physiological and behavioral effects.

Students' answers may vary.

Three of the following classes should be mentioned, along with representative examples.

Stimulants:
Caffeine—increased attentiveness; decreased reaction time; improved mood; potential nervousness and insomnia
Cocaine—feelings of well-being, confidence, and alertness; potential hallucinations and paranoia
Amphetamines—feeling of energy, alertness, talkativeness, confidence; increased concentration and reduced fatigue; loss of appetite, increased anxiety, and irritability; potential paranoia
Depressants/barbiturates:
Alcohol—initial euphoria, joy; slurred speech, poor muscle control
Barbiturates (e.g., Phenobarbital, Seconal, Nembutal)—induce sleep; promote relaxation
Narcotics
Heroin and morphine—rush of positive feeling; sense of well-being and peacefulness
Hallucinogens
Marijuana—feelings of euphoria and well-being; enhanced sensory experiences; impaired memory; distorted perception of time
LSD—vivid hallucinations; distortion of time perception
Ecstasy—sense of peacefulness and calm; increased connection and empathy with others; feeling relaxed yet energetic

APA Goal Outcome: 1.2
Bloom's Taxonomy: Remember
Difficulty: Medium
Learning Outcome: 16-1

149. *(p. 166)* Describe the prevalence of alcohol consumption, binge drinking, and alcohol-related problems among college students.

With respect to prevalence, the following statistics might be mentioned:

Alcohol consumption: 75% of college students have had a drink during the past month; 31% of male and 17% of female college students admitted drinking on 10 or more occasions during the past month; 40% of college students would be considered heavy drinkers.
Binge drinking: 50% of male and 40% of female college students have engaged in binge drinking at least once during the past month.
Alcohol-related problems: Two-thirds of lighter drinkers report having had their sleep or study disturbed by drunk students; 25% of female college students have been the target of an unwanted sexual advances by a drunk classmate.

APA Goal Outcome: 1.2, 4.2
Bloom's Taxonomy: Remember
Difficulty: Medium
Learning Outcome: 16-1

150. *(p. 170-171)* Write brief case studies of individuals, each exhibiting a different cluster of three warning signs for drug abuse or addiction. Based on your text, what advice might you give these individuals?

Students' answers may vary.

The two case studies should contain a different set of three of the following warning signs:

Always getting high to have a good time
Being high more often than not
Getting high to get oneself going
Going to work or class while high
Missing or being unprepared for class or work because one was high
Feeling badly later about something one said or did while high
Driving a car while high
Coming into conflict with the law because of drugs
Doing something while high that you wouldn't do otherwise
Being high while alone
Being unable to stop getting high
Feeling a need for a drink or a drug to get through the day
Becoming physically unhealthy
Failing at school or on the job
Thinking about drugs all the time
Avoiding family or friends while using drugs

Drug or alcohol dependence is virtually impossible to treat on one's own. Seek immediate attention from a psychologist, physician, or counselor. National and local hotlines may also help—check your telephone book. Attend meetings of NA or AA.

APA Goal Outcome: 4.2, 9.2, 9.3
Bloom's Taxonomy: Apply
Difficulty: Medium
Learning Outcome: 16-1