

## Chapter 5 - Variations in Consciousness

1. What types of awareness are included in the concept of consciousness?
  - a. awareness of internal and external stimuli
  - b. awareness of internal stimuli and awareness of thinking
  - c. awareness of self and awareness of internal stimuli
  - d. awareness of external stimuli and perceptions of those external stimuli

*ANSWER:* a

2. What metaphor did William James use to describe the changing nature of consciousness?
  - a. stream
  - b. flower garden
  - c. incomplete picture puzzle
  - d. partially submerged iceberg

*ANSWER:* a

3. There is evidence that people under surgical anesthesia occasionally hear and remember comments that were made during their surgeries. What does this evidence suggest?
  - a. There is no difference between conscious and unconscious processes.
  - b. Psychic abilities are more pronounced when certain types of drugs are administered.
  - c. We have the ability to resist the effects of anesthesia.
  - d. People continue to maintain some awareness during times of unconsciousness.

*ANSWER:* d

4. Dr. Harrigan is reading an EEG from a patient in his sleep lab, and he notices the brainwaves change from being very short to being very tall. What aspect of the brainwave is Dr. Harrigan noticing?
  - a. amplitude
  - b. frequency
  - c. channel
  - d. distribution

*ANSWER:* a

5. Dr. Harrigan is reading an EEG from a patient in his sleep lab, and he notices that the brainwaves change from being very close together to being very far apart. What aspect of the brainwave is Dr. Harrigan noticing?
  - a. amplitude
  - b. frequency
  - c. channel
  - d. distribution

*ANSWER:* d

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6. If your brainwaves change from a beta pattern to a delta pattern, what aspect has changed?
- amplitude
  - frequency
  - location of activity
  - number of active areas

*ANSWER:* b

7. What does an electroencephalograph measure?
- duration of sleep stages
  - glucose metabolism in the brain
  - electrical activity of the brain
  - variations in conscious awareness

*ANSWER:* c

8. What electroencephalograph pattern is associated with normal, waking, alert states?
- beta
  - delta
  - alpha
  - gamma

*ANSWER:* a

9. Jacob is attached to an electroencephalograph, and it is recording brain waves at 20 cycles per second. What state is Jacob most likely in?
- deeply relaxed and meditating
  - in very deep sleep
  - alert and awake
  - lightly sleeping

*ANSWER:* c

10. Megan is working through an extremely difficult calculus problem. What sort of brain wave pattern would be recorded if the overall electrical activity in her brain was being recorded at this time?
- between 8 and 12 cycles per second
  - between 4 and 7 cycles per second
  - fewer than 4 cycles per second
  - between 13 and 24 cycles per second

*ANSWER:* d

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11. With what state of consciousness is the delta wave electroencephalograph pattern associated?
- deep sleep
  - dreaming
  - agitation
  - a waking state

*ANSWER:* a

12. Nicole has just slipped into a light sleep. If Nicole were being monitored by an electroencephalograph, what type of brain wave would likely be recorded?
- beta
  - delta
  - theta
  - alpha

*ANSWER:* c

13. According to the Featured Study on the merits of unconscious thought, which of the following tends to occur when you make a decision after NOT consciously thinking about the decision you need to make?
- You become more confident in your decision.
  - You make your decision based on only one feature of the problem.
  - You make a decision that is inaccurate.
  - You make a decision that is based on more global information.

*ANSWER:* d

14. Which group made the most accurate decisions according to the Featured Study that looked at decision making using conscious or unconscious thought?
- the group that made a decision after completing a complex distraction task
  - the group that made a decision after a brief period of meditation
  - the group that was forced to make a decision immediately after seeing the options
  - the group that made a decision after being told to consciously weigh the costs and benefits of each option.

*ANSWER:* a

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15. You have to make a somewhat important decision, and you've just reviewed all the relevant information. Which of the following activities should you engage in before making your decision, based on the results of the Featured Study on conscious and unconscious thought?
- Take a nap.
  - Do some challenging crossword puzzles.
  - Sit and think about each of the options.
  - Read over all the information again.

*ANSWER:* b

16. When are we most likely to fall asleep, according to recent research?
- when our brainwaves increase in frequency
  - when it gets dark
  - as our body temperature begins to climb
  - as our body temperature begins to drop

*ANSWER:* d

17. Kayla's core body temperature has risen 1.5 degrees in the last half-hour. Which of the following is most likely?
- Kayla has been meditating for the past 30 minutes.
  - Kayla has just fallen asleep.
  - Kayla will fall asleep in the next 60 minutes.
  - Kayla has just woken up.

*ANSWER:* d

18. Brandon's endocrine system is releasing high levels of growth hormones. Which of the following is most likely?
- Brandon woke up less than an hour ago.
  - Brandon will fall asleep in the next 60 minutes.
  - Brandon fell asleep less than an hour ago.
  - Brandon will wake up in less than 60 minutes.

*ANSWER:* c

19. Which of the following is a circadian rhythm?
- predictable daily fluctuations in hormones
  - changes in pupil dilation in response to light changes
  - a woman's menstrual cycle
  - the yearly migration patterns of birds

*ANSWER:* a

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20. When the first astronauts travel to Mars, they will be travelling for long periods of time with no external time cues. What change would you predict for the circadian rhythms of those astronauts?
- They would drift toward a slightly longer cycle.
  - They would become sporadic and show no definite pattern.
  - They would stay synchronized with a 24-hour cycle.
  - They would become synchronized with the light pattern around Mars.

*ANSWER:* a

21. Ana is taking part in an experiment in which she has agreed to be completely isolated in a room with no windows or clocks for seven days. The lights in the room will be on constantly, and she can call and ask for food whenever she feels hungry. Normally, Ana falls asleep around 10:00 p.m. What would you expect to happen to her sleep pattern after seven days of being cut off from external time cues?
- She would fall asleep at approximately 11:30 p.m., 1 1/2 hours later than normal.
  - She would still fall asleep at approximately 10:00 p.m., but sleep longer.
  - She would fall asleep at 8:30 p.m., 1 1/2 hours earlier than normal.
  - She would sleep for only a few hours at a time, several times each day.

*ANSWER:* a

22. Which of the following statements about circadian rhythms in humans is most accurate?
- Circadian rhythms are apparently a uniquely human adaptation.
  - Circadian rhythms in humans tend to function on a 30-day cycle.
  - In the absence of natural light, humans show no circadian rhythms.
  - Circadian rhythms in humans appear to be regulated by several internal clocks.

*ANSWER:* d

23. Which area of the brain receives signals directly from the retina in order to adjust your biological clock?
- suprachiasmatic nucleus
  - pineal gland
  - thalamus
  - medulla

*ANSWER:* a

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24. Which area of the brain secretes melatonin as part of the sleep cycle?

- a. suprachiasmatic nucleus
- b. pineal gland
- c. thalamus
- d. medulla

*ANSWER: c*

25. What is likely to occur after signals are sent from the suprachiasmatic nucleus to the pineal gland?

- a. Circadian rhythms will be reset.
- b. Alpha rhythms will be generated.
- c. Sleep will end.
- d. The individual will begin to dream.

*ANSWER: a*

26. Which of the following causes the human pineal gland to secrete melatonin?

- a. signals from the retina
- b. detection of light by the pineal gland
- c. hard-wired circadian rhythms
- d. signals from the suprachiasmatic nucleus

*ANSWER: d*

27. Which of the following individuals is likely to get the LEAST amount of sleep?

- a. someone who works overtime
- b. someone who works a steady night shift
- c. someone who works a steady day shift
- d. someone who works a rotating shift

*ANSWER: d*

28. If you are on a sports team that must travel across several time zones for a big game, which of the following situations would result in the best odds of your team winning?

- a. Travel west the night before the game
- b. Travel east the day of the game
- c. Travel west two days before the game
- d. Travel east the night before the game

*ANSWER: c*

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29. Which of the following trips would cause the MOST problems with your sleep cycle?
- flying three hours north
  - flying three hours south
  - flying three hours west
  - flying three hours east

ANSWER: d

30. Gunther is a news anchor who just flew from Vancouver to Paris, crossing eight time zones. What can you predict for Gunther, based on what is known about jet lag?
- He will take 48 hours to adjust to the new time zone.
  - He will not experience any jet lag because he has flown west to east.
  - He will take just over a week to adjust to the new time zone.
  - He will take about four days to adjust to the new time zone.

ANSWER: c

31. After which of the following flights would a flight attendant experience the most jet lag, based on what is known about circadian rhythms and jet lag?
- Montreal to Vancouver (east to west)
  - Victoria to Toronto (west to east)
  - Edmonton to Los Angeles (north to south)
  - Orlando to Halifax (south to north)

ANSWER: b

32. Which of the following is known about people who work on rotating shift schedules (“shift workers”) compared to people who work the same shift all the time?
- Shift workers have more accidents and are less productive.
  - Shift workers are more likely to have accidents, but are more productive.
  - Shift workers are more likely to have accidents, but are equally productive.
  - Shift workers have fewer accidents, but are less productive.

ANSWER: a

33. Which of the following occurs when we set the clock ahead in the spring for Daylight Savings Time?
- There is a reduction in industrial accidents associated with changing day length.
  - There is an increase in traffic accidents for a week after the switch.
  - There are damaging effects to the pineal gland.
  - There is an improvement in quality of sleep for people in the Southern Hemisphere.

ANSWER: b

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34. Which of the following helps reduce the effects of rotating shiftwork?
- avoiding caffeine
  - consuming caffeine
  - cycling through progressively later start times
  - cycling through progressively earlier start times

ANSWER: d

35. What does an electromyograph record?
- contractions of the heart
  - eye movements
  - brain wave activity
  - muscular activity and tension

ANSWER: d

36. What is the state of consciousness known as sleep, according to behavioural and physiological research?
- active in terms of mental changes, but inactive in terms of physiological changes
  - several distinct stages, each with its own characteristic level of mental and physical activity
  - a relatively uniform experience, with the exception of periods of dreaming
  - a uniform state in which the brain is “turned off” temporarily

ANSWER: b

37. Which of the following instruments would be used to measure muscle tension?
- polygraph
  - electroencephalograph
  - electrooculograph
  - electromyograph

ANSWER: d

38. Which of the following instruments would be most useful for documenting the eye movements associated with REM sleep?
- electromyograph
  - electrocardiograph
  - electrooculograph
  - electroencephalograph

ANSWER: c

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39. Which of the following instruments is NOT usually used to monitor sleep in the laboratory?
- electromyograph
  - positron emission tomography
  - electroencephalograph
  - electrooculograph

ANSWER: b

40. Which EEG brain wave patterns are found in stage 1 sleep?
- theta
  - REM
  - delta
  - alpha

ANSWER: a

41. Katja is listening to a lecture late on a Friday afternoon. She starts to feel drowsy, and then falls into a light sleep. Which of the following shifts would be observed if her brain wave patterns were being monitored?
- theta waves to beta waves and finally to alpha waves
  - beta waves to theta waves and finally to alpha waves
  - alpha waves to beta waves and finally to delta waves
  - beta waves to alpha waves and finally to theta waves

ANSWER: d

42. An electroencephalograph (EEG) is recording Alyssa's brain activity. She has just entered stage 1 sleep when there is a sudden, loud crash in the sleep lab. Which of the following is most likely?
- The EEG will temporarily show a flat line before returning to theta waves.
  - There will be a sleep spindle recorded on the EEG at the time of the crash.
  - The crash will wake Alyssa from her relatively light sleep.
  - The noise of the crash will be incorporated into the dream Alyssa is currently experiencing.

ANSWER: c

43. Harpreet is hooked up to an electroencephalograph (EEG) in a sleep lab. As the researcher watches the printout from the EEG, theta waves appear. What can the researcher conclude, based on this information?
- Harpreet is still awake, but is relaxed and drowsy.
  - Harpreet is currently in REM sleep.
  - Harpreet has just entered stage 1 sleep.
  - Harpreet has just entered stage 3 sleep.

ANSWER: c

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44. Which stage of sleep is characterized by sleep spindles, which appear against a background of mixed, mostly lower frequency EEG activity?
- stage 1
  - stage 2
  - stage 4
  - REM

*ANSWER:* b

45. What sleep state is associated with the emergence of sleep spindles?
- stage 1 sleep
  - stage 2 sleep
  - slow wave sleep
  - REM sleep

*ANSWER:* b

46. Rebecca is hooked up to an electroencephalograph (EEG) in a sleep lab. As the researcher watches the printout from the EEG, delta waves appear. What can the researcher conclude about Rebecca's state of consciousness, based on this information?
- She is currently in REM sleep.
  - She has just entered stage 1 sleep.
  - She has just entered stage 3 sleep.
  - She is still awake, but is relaxed and drowsy.

*ANSWER:* c

47. An electroencephalograph (EEG) is recording Juan's brain activity, and the recording is currently dominated by delta waves. At the same time, there are a series of beeps from one of the other machines. Which of the following is likely?
- There will be no change in the EEG, and Juan's sleep will not be interrupted.
  - There will be a sleep spindle recorded on the EEG at the time of the beeps.
  - The noise of the beeps will be incorporated into the dream Juan is currently experiencing.
  - The beeps will wake Juan from his relatively light sleep.

*ANSWER:* a

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48. In which stage of sleep do the slowest brain waves occur?

- a. stage 1
- b. stage 2
- c. REM
- d. stage 4

*ANSWER:* d

49. During which of the following activities are you likely to have prominent alpha waves?

- a. being hypnotized
- b. meditating
- c. programming a computer
- d. dancing

*ANSWER:* b

50. Rowan was relaxing and not really paying attention to anything when his roommate came home. The roommate has asked for help working through some difficulties with a computer program. What will happen to Rowan's brain waves as he helps his roommate?

- a. They will decrease in both frequency and amplitude.
- b. They will increase in frequency and decrease in amplitude.
- c. They will increase in both frequency and amplitude.
- d. They will decrease in frequency and increase in amplitude.

*ANSWER:* b

51. Bailey is hooked up to an electroencephalograph (EEG) in a sleep lab. She has been asleep for just over an hour now, and her EEG is showing low-amplitude, irregular brain wave patterns. Her breathing and pulse rate are irregular, and her eyes are darting back and forth beneath her closed eyelids. What can the researcher conclude about Bailey's state of consciousness?

- a. She is in stage 2 sleep.
- b. She suffers from a sleep disorder.
- c. She has just entered REM sleep.
- d. She has just entered stage 4 sleep.

*ANSWER:* c

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52. Which of the following states of consciousness is associated with beta waves, dreaming, rapid eye movements, and profound muscle relaxation?
- stage 1 sleep
  - stage 2 sleep
  - REM sleep
  - relaxed wakefulness

*ANSWER: c*

53. Dr. Singh is observing Robert in a sleep lab. Dr. Singh intends to wake Robert each time he begins REM sleep. At what point should Robert be awakened, based on the electroencephalograph (EEG) recordings?
- onset of low-voltage, high-frequency beta waves
  - onset of alpha wave activity
  - onset of sleep spindles
  - onset of theta wave activity

*ANSWER: a*

54. Which of the following is true of voluntary muscle activity during sleep?
- It does not occur in NREM sleep.
  - It does not occur during either REM or NREM sleep.
  - It is at its lowest during REM sleep.
  - It is at its highest during REM sleep.

*ANSWER: c*

55. With which stage of sleep is dreaming typically associated?
- REM sleep
  - stage 1 sleep
  - stage 2 sleep
  - stage 4 sleep

*ANSWER: a*

56. "Manny got out of bed and began doing calisthenics during REM sleep, probably because he was dreaming about boot camp." What is wrong with this statement?
- Research shows that no dreaming takes place in REM sleep.
  - Research shows that we are virtually paralyzed in REM sleep.
  - Sleep is a relaxed condition of the body and, as such, precludes physical activity.
  - Manny was never in boot camp so he is not likely to be dreaming about it.

*ANSWER: b*

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57. Which of the following is NOT associated with REM sleep?

- a. irregular breathing
- b. sleep spindles
- c. heightened muscle tension
- d. dreaming

ANSWER: c

58. Olivia has trouble sleeping for more than four hours each night. Which of the following is Olivia likely to experience?

- a. more sleep spindles than people who sleep for a full eight hours
- b. less deep sleep than people who sleep for a full eight hours
- c. more vivid dreams than people who sleep for a full eight hours
- d. less REM sleep than people who sleep for a full eight hours

ANSWER: d

59. What does the sleep cycle tend to contain as it recurs through the night?

- a. more stage 4 and less REM
- b. more stage 4 and more REM
- c. less stage 4 and less REM
- d. less stage 4 and more REM

ANSWER: d

60. When can we expect to do the most dreaming, given the cyclical nature of sleep?

- a. in the middle of the night's sleep
- b. toward the beginning of the night's sleep
- c. in NREM sleep
- d. toward the end of the night's sleep

ANSWER: d

61. During adulthood, there are changes in the proportions of sleep stages. Which of the following shows a gradual decline as we age?

- a. stage 1 sleep
- b. stage 2 sleep
- c. slow-wave sleep
- d. all stages of NREM sleep

ANSWER: c

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62. If you could compare EEG recordings from a teenager and her grandmother, which of the following should you expect?
- Both of these individuals will sleep for the same length of time, but the grandmother will spend substantially less time in REM sleep.
  - Both of these individuals will sleep for the same length of time, but the grandmother will spend substantially more time in REM sleep.
  - The grandmother will sleep less than the teenager, but both will spend about 20 percent of their sleep time in REM sleep.
  - The grandmother will sleep less than the teenager, and also experience proportionately less REM sleep.

ANSWER: c

63. Ming is 12, and her Aunt Lin has come for a visit. Aunt Lin is using the spare bed in Ming's room. Several times during the night, Aunt Lin awakens briefly and then falls back to sleep. Ming doesn't awaken at all during the night. Which of the following research results best explains this difference in sleep patterns?
- During adulthood, the proportion of REM sleep gradually declines.
  - The elderly are more affected by jet lag and shifts in their circadian rhythms.
  - During adulthood, the proportion of slow-wave sleep increases significantly.
  - During adulthood, the proportion of slow-wave sleep gradually declines.

ANSWER: d

64. Riley is happy this morning because Jennifer, his four-month-old infant, finally slept through the night for the first time. What would comparisons of EEG recordings show if they were available for both Riley and Jennifer?
- Jennifer spent only half as much time in REM sleep.
  - Jennifer spent more than twice as much time in REM sleep.
  - Both Riley and Jennifer spent the same proportion of time in NREM sleep.
  - Riley spent half as much time in NREM sleep.

ANSWER: b

65. Which of the following is more common in Japan than in North America?
- napping
  - rate of sleep disorders
  - acceptance of co-sleeping
  - proportion of stage 1 sleep

ANSWER: c

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66. Which of the following is more common in tropical climates?

- a. narcolepsy
- b. napping
- c. sleep paralysis
- d. repeated waking during the night

ANSWER: b

67. Cody is visiting his pen pal in a tropical, non-industrialized village. Which of the following is Cody likely to observe about the inhabitants of the village?

- a. They are less likely than Canadians are to encourage co-sleeping.
- b. They experience less REM sleep than is typical for Canadians.
- c. They experience less slow-wave sleep than is typical for Canadians.
- d. They are more likely than Canadians to take a nap each day.

ANSWER: d

68. Which of the following brain structures appears to be most important to sleep and wakefulness?

- a. cerebellum
- b. hippocampus
- c. corpus callosum
- d. reticular formation

ANSWER: d

69. Melanie had a brain injury, and the ascending fibres in her reticular activating system were damaged. Which of the following is a likely consequence of the injury?

- a. She will no longer experience stage 2 or stage 3 sleep.
- b. She will be in a coma.
- c. She will not be able to sleep for more than a few minutes at a time.
- d. She will no longer experience REM sleep.

ANSWER: b

70. Dakota is taking a prescription drug, and one of the side effects of the drug is an increase in the stimulation of ascending fibres in the reticular activating system. Which of the following is Dakota likely to experience?

- a. He will begin to dream during stage 3 and 4 sleep.
- b. He will have difficulty falling asleep.
- c. He will no longer experience REM sleep.
- d. He will want to sleep all the time.

ANSWER: b

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71. Imagine that a human was born with no pons. What would you predict about sleep for this person?
- no REM sleep
  - constant sleep
  - no sleep
  - no NREM sleep

*ANSWER:* a

72. For the past month, Mikail has been getting only five to six hours of sleep, instead of the eight hours he is used to. Which of the following is a likely consequence of Mikail's reduced sleep?
- impaired attention and coordination
  - hallucinations and general disorientation
  - development of anxiety symptoms
  - night terrors when he actually does fall asleep

*ANSWER:* a

73. What is the effect of selective REM sleep deprivation on daytime functioning?
- It severely impairs cognitive functioning the next day.
  - It severely impairs motor functioning the next day.
  - It has little impact on daytime functioning or task performance.
  - It impairs functioning in the morning, but those deficits are brief.

*ANSWER:* c

74. What will a person experience after being selectively deprived of REM sleep??
- emotionality
  - NREM
  - hypochondriasis
  - REM rebound

*ANSWER:* d

75. Kara slips into REM sleep immediately after falling asleep. What has Kara probably experienced recently?
- working a rotating shift
  - alcohol intoxication
  - NREM rebound
  - selective sleep deprivation

*ANSWER:* d

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76. While serving as a subject at a sleep clinic, Tiana is deprived of dreaming for several nights. Which of the following is a likely result?
- She will experience REM rebound and spend more time in REM sleep on subsequent nights.
  - She will become accustomed to going without dreaming and spend less time in REM sleep on subsequent nights.
  - She will have difficulty achieving REM on subsequent nights.
  - She will immediately return to a normal sleep cycle when she is allowed to sleep through the night.

*ANSWER:* a

77. Shelby took part in a research study in which, for three consecutive nights, she was awakened each time she entered REM sleep. What will happen when Shelby is back at home?
- She will spend extra time in REM sleep for several nights.
  - She will develop insomnia and show general disturbances in her sleep patterns.
  - She will spend less time in REM sleep than she did before she took part in the study.
  - She will spend extra time in both slow-wave and REM sleep for several nights.

*ANSWER:* a

78. What happens to people who are selectively deprived of slow-wave sleep for several nights in a row?
- They make up for the lost slow-wave sleep when allowed to sleep without interruption.
  - They suffer no ill effects whatsoever.
  - They need to be awakened less and less frequently as the deprivation goes on.
  - They spend more time in REM sleep to compensate.

*ANSWER:* a

79. Pascal took part in a research study in which, for three consecutive nights, he was awakened each time he entered slow-wave sleep. What will happen when Pascal is back at home?
- He will develop insomnia and show general disturbances in his sleep patterns.
  - He will spend extra time in both slow-wave and REM sleep for several nights.
  - He will spend less time in slow-wave sleep than he did before he took part in the study.
  - He will spend extra time in slow-wave sleep for several nights.

*ANSWER:* d

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80. Which stages of sleep appear to be important for consolidation of various types of memory?

- a. slow-wave and REM sleep
- b. stage 1 and slow-wave sleep
- c. stages 1 and 4 sleep
- d. stage 2 and REM sleep

*ANSWER:* a

81. Which stage of sleep appears to be important for neurogenesis?

- a. stage 1
- b. stage 2
- c. NREM
- d. REM

*ANSWER:* d

82. When participants in a study were asked to complete a creativity task after either a nap or a period of rest, which of the following patterns of results was found?

- a. The nap groups outperformed the rest group.
- b. The rest group outperformed the nap groups.
- c. The nap group that experienced REM sleep outperformed the other nap group and the rest group.
- d. There were no significant differences between resting and napping.

*ANSWER:* c

83. Which of the following groups should have the highest mortality risk?

- a. people who typically sleep fewer than seven hours per night
- b. people who typically sleep more than ten hours per night
- c. people who typically sleep seven to eight hours per night
- d. people who experience pseudo-insomnia

*ANSWER:* b

84. What is the most common known sleep disorder?

- a. insomnia
- b. night terrors
- c. somnambulism
- d. sleep apnea

*ANSWER:* a

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85. Parminder has no trouble falling asleep, but she has difficulty remaining asleep. What is Parminder suffering from?
- insomnia
  - narcolepsy
  - sleep apnea
  - pseudoinsomnia

ANSWER: a

86. Anna has noticed that for the past three weeks she is unable to sleep for more than five hours at a time, even though she used to regularly get eight hours of sleep per night. She wakes early in the morning and just can't fall back to sleep. What has Anna developed?
- sleep apnea
  - pseudoinsomnia
  - somnambulism
  - insomnia

ANSWER: d

87. Which of the following individuals is statistically most likely to experience insomnia?
- Adam, a 22-year-old man
  - Beth, a 22-year-old woman
  - Carla, a 52-year-old woman
  - Dean, a 52-year-old man

ANSWER: c

88. What is the cause of insomnia according to the hyperarousal model?
- stimulant drugs including caffeine
  - an overactive nervous system
  - overwork and pressure
  - subclinical mood disorders

ANSWER: b

89. Which of the following statements regarding the use of sleeping pills is LEAST accurate?
- There is some danger of overdose.
  - They reduce the proportion of time spent in slow-wave sleep.
  - They gradually become less effective with continued use.
  - They are a good long-term solution for insomnia.

ANSWER: d

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90. For the past two weeks, Cameron has been taking a mild sedative to help him fall asleep. What is he likely to experience over time?
- He will need to take a larger dose in order to fall asleep because, over time, sedatives become less effective.
  - He can take less of the drug because the effects of sedatives tend to be cumulative.
  - He will spend more of the night dreaming than he did without the sedative.
  - After two weeks his insomnia should be cured, and he can stop using the sedative.

*ANSWER:* a

91. What tends to happen if you abruptly stop the use of a sedative for the treatment of insomnia?
- microsleep
  - narcolepsy
  - increased insomnia
  - sleep apnea

*ANSWER:* c

92. Which type of treatments produces more long-lasting benefits in the treatment of insomnia than do drug therapies?
- behavioural
  - psychoanalytic
  - electroconvulsive shock
  - hypnosis

*ANSWER:* a

93. Carlos regularly goes directly from wakefulness to REM sleep for brief periods of time each day. This is very disruptive to his life, and he feels that he has no control over it. Which of the following terms best describes Carlos's daily pattern?
- hypersomnia
  - siesta
  - narcolepsy
  - sleep apnea

*ANSWER:* c

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94. Noor has episodes in which she experiences a sudden and irresistible urge to sleep during normal waking periods. Which disorder does Noor most likely suffer from?
- a. hypersomnia
  - b. insomnia
  - c. a lack of REM rebound
  - d. narcolepsy

*ANSWER:* d

95. What is the rare sleep disorder in which a person will, without warning, go directly from being awake into REM sleep?
- a. hypersomnia
  - b. narcolepsy
  - c. sleep apnea
  - d. somnambulism

*ANSWER:* b

96. Caleb wants to become a fighter pilot. Which sleep disorder would most likely make him ineligible to fly fighter planes?
- a. somnambulism
  - b. narcolepsy
  - c. sleep apnea
  - d. pseudoinsomnia

*ANSWER:* b

97. Which of the following is common among people who suffer from sleep apnea?
- a. brain lesions
  - b. low body weight
  - c. risk of heart failure
  - d. somnambulism

*ANSWER:* a

98. What symptom is characteristic of sleep apnea?
- a. reflexive gasping for air during sleep
  - b. extremely low rate of REM
  - c. night terrors
  - d. sudden, irresistible urge to sleep during normal waking hours

*ANSWER:* a

## Chapter 5 - Variations in Consciousness

99. Tai's wife cannot sleep through the night. She claims that her husband seems to stop breathing in his sleep and then suddenly jerks awake, gasping for breath. This not only disturbs his sleep, but also awakens her. What sleep disorder does Tai likely have?

- a. narcolepsy
- b. sleep apnea
- c. somnambulism
- d. night terrors

*ANSWER:* b

100. Which of the following usually occurs in REM sleep?

- a. night terrors
- b. nightmares
- c. sleep apnea
- d. sleepwalking

*ANSWER:* b

101. Adam slept peacefully through most of the night and then at 5:00 a.m. he woke up sobbing. When his parents asked what had scared him, he told them that monsters came through the wall to attack him, and no matter how fast he ran he couldn't get away. Even though his parents told him it was just a bad dream, Adam was afraid to go back to sleep. From this description, what did Adam experience?

- a. a nightmare
- b. a night terror
- c. sleep seizure
- d. sleep apnea

*ANSWER:* a

102. What is correlated with the experience of nightmares in adults?

- a. onset of sleep apnea
- b. sleepwalking
- c. schizophrenia, as well as other psychotic disorders
- d. significant stress

*ANSWER:* d

## Chapter 5 - Variations in Consciousness

103. During what stage of sleep are night terrors most likely to occur?

- a. REM sleep
- b. stage 1
- c. stage 2
- d. stage 4

*ANSWER:* d

104. Which of the following are generally associated with non-REM sleep?

- a. nightmares
- b. rapid eye movements
- c. night terrors
- d. dreams

*ANSWER:* c

105. Kelli wakes up abruptly early in the night with intense autonomic arousal and feelings of panic. Once she calms down, she falls back to sleep easily. What has Kelli experienced?

- a. a nightmare
- b. a night terror
- c. a psychotic dream
- d. somnambulism

*ANSWER:* b

106. Sally had been asleep for just over two hours when she suddenly let out a piercing cry and sat straight up in her bed. When her parents asked what had scared her, she really couldn't remember, and she soon fell back to sleep. From this description, what did Sally experience?

- a. a nightmare
- b. a night terror
- c. REM deprivation
- d. sleep apnea

*ANSWER:* b

107. Stephen wanders about while remaining asleep. What is Stephen's condition called?

- a. apnea
- b. somnambulism
- c. narcolepsy
- d. agnosia

*ANSWER:* b

## Chapter 5 - Variations in Consciousness

108. Iris has been asleep for less than an hour. Her parents are surprised when she walks into the living room, and they tell her to go back to sleep. The next day Iris does not remember getting up after she went to bed. From this description, what did Iris experience?

- a. a night terror
- b. somnambulism
- c. REM sleep behaviour disorder
- d. a nightmare

*ANSWER: b*

109. Of the following statements regarding sleepwalking, which is most accurate?

- a. Sleepwalking occurs in REM sleep.
- b. It is not safe to awaken a sleepwalker.
- c. Sleepwalkers are prone to accidents.
- d. Sleepwalkers are acting out a dream.

*ANSWER: c*

110. Which of the following statements regarding sleepwalking is most accurate?

- a. It is dangerous to awaken a sleepwalker.
- b. Sleepwalking typically occurs while the person is dreaming.
- c. There appears to be a genetic predisposition to sleepwalking.
- d. Sleepwalking is correlated with stressful events.

*ANSWER: c*

111. Mark is a middle-aged man who has recently begun to talk and flail about while he is sleeping, which is very aggravating to his wife. It seems as if he is acting out a dream. Which of the following sleep disorders is most similar to Mark's problem?

- a. REM sleep behaviour disorder
- b. sleep apnea
- c. somnambulism
- d. night terrors

*ANSWER: a*

## Chapter 5 - Variations in Consciousness

112. Which of the following statements about dreams is NOT accurate?

- a. Dreams are not as bizarre as widely assumed.
- b. Dreams have had a profound impact on art and culture.
- c. Dreamers sometimes realize that they are dreaming.
- d. Dreams occur only during REM sleep.

ANSWER: d

113. What has research revealed about the content of most dreams?

- a. They are focused on others rather than oneself.
- b. They are about fairly normal activities.
- c. There are random bursts of activity with little coherence.
- d. They are about supernatural beings.

ANSWER: b

114. Which of the following is a myth about dreaming?

- a. Some people know that they are dreaming while in the middle of a dream.
- b. You will wake up before you “die” in a dream so that you do not actually die.
- c. You can incorporate sounds and other stimuli into your dreams, like dreaming of rain if you hear running water.
- d. Most dreams are from a first-person perspective.

ANSWER: b

115. Bill has had many dreams in which he has fallen off a cliff, but he has always awakened before hitting the bottom. He has become an insomniac because of his fear that if he ever hits the bottom, he will die. What would you tell Bill?

- a. He simply needs to train himself to wake up whenever he has a falling dream.
- b. He should be afraid because shocking dreams are often fatal.
- c. His belief has no substance and is merely a myth.
- d. He should take sleeping pills to repress REM sleep so that he will not dream.

ANSWER: c

## Chapter 5 - Variations in Consciousness

116. Which of the following would a student be LEAST likely to dream about, according to research evidence on dream content?
- falling from the top of a tall building on campus
  - being chased by his or her most feared instructor
  - missing an important exam
  - being a tree on campus

ANSWER: d

117. Which of the following is an example of Freud's concept of day residue?
- Mary feels anxious all day after having had a nightmare.
  - Danielle has difficulty falling asleep because she is worried that she will not hear her alarm in the morning.
  - Arik dreams about monsters whenever he is having a rough time at work.
  - Tanner has a lot of dreams that take place at his job.

ANSWER: d

118. What would you expect to happen if you sprayed water on the hand of an individual who was in REM sleep?
- He would wake up less able to recall his dream.
  - She would somnambulate toward the bathroom.
  - She would not be at all disturbed or affected by the experience, due to the deep nature of REM sleep.
  - He would incorporate the experience into his dream, perhaps as a rainstorm.

ANSWER: d

119. Some individuals have the ability to exert control over their dreams. What is this sort of dreaming called?
- inductive dreaming
  - bounded dreaming
  - lucid dreaming
  - tactical dreaming

ANSWER: c

120. Why might some therapists be interested in research surrounding the induction of lucid dreaming?
- Controlling the content of a lucid dream could be an important treatment for disorders like schizophrenia.
  - Controlled dreaming would allow for an improvement in creative processes.
  - Giving the dreamer control over the content of a dream might be helpful in treating nightmares.
  - If you can induce a dream, you could potentially treat disorders like insomnia.

ANSWER: c

## Chapter 5 - Variations in Consciousness

121. Which of the following statements about culture and dreams is LEAST accurate?

- a. Some basic dream themes appear to be nearly universal across cultures.
- b. People in Western societies tend to recall their dreams most vividly.
- c. In many cultures, dreams are seen as a window into the spiritual world.
- d. In Western cultures, dreams are largely written off as insignificant.

*ANSWER:* b

122. Conner had a dream in which he and a pink rabbit were riding a train. The rabbit pulled an ice cream cone out of a top hat that he was wearing. Conner is convinced the dream represents an unconscious desire to cancel his upcoming wedding. What is the pink rabbit in Freudian terms?

- a. the manifest content of Conner's dream
- b. an interpretation of random neural activity in lower brain centres
- c. the latent content of Conner's dream
- d. an attempt to work through problems he is currently experiencing in his life

*ANSWER:* a

123. Abigail had a dream in which she was riding a bicycle toward some beautiful mountains. Abigail is convinced the dream represents an unconscious desire to quit her current job. What are the bicycle and mountains in Freudian terms?

- a. the latent content of Abigail's dream
- b. an interpretation of random neural activity in lower brain centres
- c. the manifest content of Abigail's dream
- d. an attempt to work through problems she is currently experiencing in her life

*ANSWER:* c

124. Which theorist advanced the wish-fulfillment hypothesis about dreaming?

- a. J. Allan Hobson
- b. Rosalind Cartwright
- c. Robert McCarley
- d. Sigmund Freud

*ANSWER:* d

## Chapter 5 - Variations in Consciousness

125. According to Freud, a sexually frustrated person would probably have highly erotic dreams. What does this reflect about Freud's view of the principal purpose of a dream?
- The dream's purpose is repression of unconscious desires.
  - The dream's purpose is conflict resolution.
  - The dream's purpose is wish fulfillment.
  - The dream's purpose is sexual gratification.

*ANSWER: c*

126. Peter dreams of arguing with a larger-than-life faceless authority figure. If you interpret Peter's dream as his attempt to decide how to discuss a problem with his father, what theory are you using?
- activation-synthesis theory
  - problem-solving theory
  - wish-fulfillment theory
  - neural-overflow theory

*ANSWER: b*

127. Which view of dreaming suggests that dreams are times when people can think creatively about what is going on in their lives and then use that information later when awake?
- wish fulfillment view of dreams
  - James-Verduin view of dreams
  - problem-solving view of dreams
  - synergistic view of dreams

*ANSWER: c*

128. Tara has been fighting with her best friend recently, and she has been dreaming about losing pieces of her body. According to Freud's concept of dreaming, what is the manifest content of her dreams?
- the fight with her friend
  - the sadness she feels when fighting with her friend
  - the body parts that she loses in the dream
  - the emotions she experiences when she wakes up

*ANSWER: c*

## Chapter 5 - Variations in Consciousness

129. Tara has been fighting with her best friend recently, and she has been dreaming about losing pieces of her body. According to Freud's concept of dreaming, what is the latent content of her dreams?
- the fight with her friend
  - the pain she experiences in her dream
  - the body parts that she loses in the dream
  - the emotions she experiences when she wakes up

*ANSWER:* a

130. Logan has a dream in which he is searching for a lost key. What do the images in Logan's dream represent, according to Rosalind Cartwright's cognitive theory of dreaming?
- an interpretation of random neuron activity in lower brain centres
  - the manifest content of the dream
  - the latent content of the dream
  - an attempt to work through problems he is currently experiencing in his life

*ANSWER:* d

131. Which theory of dreaming proposes that dreams are the brain's attempt to make sense out of bursts of neural activity during sleep?
- activation-synthesis theory
  - reticular-activation theory
  - wish-fulfillment theory
  - problem-solving theory

*ANSWER:* a

132. Danielle had a dream in which she was playing cards with an elephant. What does the elephant in Danielle's dream represent, according to the activation synthesis model of dreaming?
- an attempt to work through problems she is currently experiencing in her life
  - an interpretation of random neuron activity in lower brain centres
  - the manifest content of the dream
  - the latent content of the dream

*ANSWER:* b

## Chapter 5 - Variations in Consciousness

133. What is hypnosis?

- a. a procedure for inducing a state of heightened suggestibility
- b. a state of altered consciousness that is similar to sedation or hallucination
- c. a form of meditation that leads to dream-like consciousness
- d. a form of self-delusion

*ANSWER:* a

134. Julie has been hypnotized so that she can experience age-regression. She is currently sucking her thumb and babbling. What could you expect to observe about her behaviour?

- a. It will replicate her experience as an infant.
- b. It will be typical of all infants.
- c. It will resemble the behaviour of an adult pretending to be an infant.
- d. It will become more and more authentic the longer she is under hypnosis.

*ANSWER:* c

135. Thalia's new dentist plans to use hypnosis, instead of anesthesia, while he works on Thalia's teeth. Thalia asks you if she should go along with this, or if she should find another dentist. What should you tell her, based on research into the effects of hypnosis?

- a. Once she is no longer hypnotized, her sensitivity to pain will show a rebound effect.
- b. Hypnosis typically has no effect on the experience of pain.
- c. Hypnosis is effective as an anesthetic only when it is used in conjunction with sedatives.
- d. Hypnosis has been an effective substitute for some anesthetic drugs for some people.

*ANSWER:* d

136. A stage hypnotist is sometimes successful in getting people to disrobe in public. What is the best explanation for this phenomenon?

- a. When hypnotized, a subject comes under the total control of the hypnotist and will follow any instructions to the letter.
- b. The subject is a confederate of the hypnotist and disrobes while pretending to be hypnotized.
- c. The hypnotist is careful to select only those subjects who look as if they would enjoy disrobing in public.
- d. When hypnotized, subjects are able to convince themselves that they cannot be held responsible for their actions.

*ANSWER:* d

## Chapter 5 - Variations in Consciousness

137. A hypnotist is putting on a demonstration, and your friend Benjamin is thinking about volunteering. He is nervous because he is afraid to do things he would normally not do. What should you tell Benjamin, based on research into the effects of hypnosis?
- a. People lose all personal control when under the effects of hypnosis.
  - b. Most people have a protective cognitive barrier that prevents them from doing things they consider unacceptable.
  - c. Hypnosis doesn't really work, so he shouldn't bother volunteering.
  - d. Sometimes people will do things under hypnosis that they would normally consider unacceptable.

*ANSWER: d*

138. If you were to monitor the brain activity of an individual who is under hypnosis, which of the following would you be most likely to find?
- a. The patterns would be similar to those of a young child.
  - b. There is no special pattern associated with a hypnotic state.
  - c. The patterns are similar to those of someone in slow-wave sleep.
  - d. The patterns are similar to those of someone who has been diagnosed with a multiple personality disorder.

*ANSWER: b*

139. What does the role-playing theory of hypnosis offered by Barber and Spanos suggest about the hypnotized subject?
- a. He enters into a trance state and acts out hypnotic suggestions.
  - b. He knows that he is only pretending.
  - c. He is in a normal state but acts out the role of a hypnotized person.
  - d. He fakes a hypnotic state.

*ANSWER: c*

140. Which theory of hypnosis states that hypnotized persons are acting in the manner they believe a hypnotized person would?
- a. dissociative theory
  - b. role-playing theory
  - c. Freudian theory
  - d. divided-consciousness theory

*ANSWER: b*

## Chapter 5 - Variations in Consciousness

141. While Marta was hypnotized, she vividly recalled the events of her first birthday party. However, when the events she described were compared with an actual video from her birthday party, most of the things she described did not actually happen. Which theory is consistent with this example?

- a. role-playing theory
- b. divided-consciousness theory
- c. dissociative theory
- d. wish-fulfillment theory

*ANSWER:* a

142. While Nicholas was hypnotized, he was able to endure painful jaw surgery without any anesthesia. Which theory of hypnosis is consistent with this example?

- a. role-playing theory
- b. opiate theory
- c. Freudian theory
- d. dissociative theory

*ANSWER:* d

143. What is dissociation?

- a. role-playing by hypnotized subjects in response to situational cues
- b. a splitting of mental processes into two simultaneous streams of awareness
- c. a hypnotized subject's willingness to act out the hypnotist's suggestions
- d. a loss of inhibition by hypnotized subjects

*ANSWER:* b

144. Which of the following theories of hypnosis is most consistent with the idea that hypnosis is associated with divided consciousness and is an altered state?

- a. Freud's psychoanalytic theory
- b. Hilgard's dissociation theory
- c. Schachter's cognitive theory
- d. Barber's role theory

*ANSWER:* b

## Chapter 5 - Variations in Consciousness

145. What are the origins of meditation techniques?

- a. scientific study of the relaxation response
- b. Eastern religions
- c. transcendental psychology
- d. treatment of hysteria

*ANSWER:* b

146. According to research, which physiological state is most similar to that of meditation?

- a. relaxation
- b. that produced by hypnosis
- c. the REM stage of sleep
- d. a drug-induced trance

*ANSWER:* a

147. Which of the following does NOT happen when a person is in a meditative state?

- a. respiration rate decreases
- b. heart rate decreases
- c. alpha waves become more prominent in EEG recordings
- d. oxygen consumption increases

*ANSWER:* d

148. Scott's brain is producing alpha and theta waves, and he shows a decrease in his heart rate, oxygen consumption, and carbon dioxide elimination. Which of the following is most likely?

- a. Scott is in REM sleep.
- b. Scott is meditating.
- c. Scott has taken ecstasy.
- d. Scott is hypnotized.

*ANSWER:* b

149. Hailey recently began meditating on a regular basis. What should Hailey expect to experience in the short term?

- a. an elimination of fatigue
- b. an alteration in her consciousness similar to taking sedative drugs
- c. an increase in relaxation and a decrease in autonomic arousal
- d. a sense of euphoria similar to that experienced when taking opiate drugs

*ANSWER:* c

## Chapter 5 - Variations in Consciousness

150. Which of the following is a criticism regarding research on meditation?
- People who are meditating cannot be expected to provide accurate information about the process.
  - Meditation researchers are reporting only their own subjective experiences.
  - There are methodological flaws in much of the research, including sampling bias and the potential for placebo effects.
  - It is unethical to conduct the necessary experimental studies on meditation.

*ANSWER: c*

151. What are psychoactive drugs?
- drugs that act primarily on serotonin receptors
  - illicit or illegal drugs that alter emotional or psychological states
  - drugs that alter emotional state, behavioural functioning, and mental condition
  - prescription medications that are used for the treatment of mental disorders, including sleep disorders

*ANSWER: c*

152. What happened to the rate of cannabis use by young Canadians between 2004 and 2009, according to a recent survey on addictions?
- It remained unchanged.
  - It decreased.
  - It doubled.
  - It remained unchanged, but its use is causing more problems in society.

*ANSWER: b*

153. For which of the following reasons would your doctor prescribe you an opiate drug?
- sleep problems
  - depression
  - severe pain
  - memory problems

*ANSWER: c*

154. Aimee is taking a prescription drug to control her back pain. She finds that when she takes the drug, she experiences some short-term drowsiness and nausea. What type of drug has Aimee's physician prescribed?
- narcotic
  - stimulant
  - hallucinogen
  - sedative

*ANSWER: a*

## Chapter 5 - Variations in Consciousness

155. Jackson broke his back when he fell off the roof. He was in tremendous pain while he was in the hospital. What type of drug did Jackson's physician most likely prescribe to help him deal with the pain while his back healed?
- a. amphetamines
  - b. opiates
  - c. hallucinogens
  - d. sedatives

*ANSWER:* b

156. What type of drug depresses central nervous system activity?
- a. amphetamine
  - b. narcotic
  - c. hallucinogen
  - d. sedative

*ANSWER:* d

157. How are drugs that are typically used as "sleeping pills" classified?
- a. hallucinogens
  - b. sedatives
  - c. narcotics
  - d. soporifics

*ANSWER:* b

158. Carlos is taking a prescription drug to reduce the anxiety he has been feeling since he lost his job. He finds that when he takes the drug he experiences some short-term lethargy and impaired coordination. What type of drug has Carlos's physician likely prescribed?
- a. narcotic
  - b. stimulant
  - c. hallucinogen
  - d. sedative

*ANSWER:* d

## Chapter 5 - Variations in Consciousness

159. Isaac has had insomnia for six months and when he goes in for his regular checkup, he asks his family doctor if there is something that can be prescribed to help him fall asleep. If his doctor does prescribe a medication, what is it most likely to be?

- a. barbiturate
- b. amphetamine
- c. narcotic
- d. hallucinogen

*ANSWER:* a

160. Alonzo has just consumed a substance that provides him with increased alertness and energy, along with reduced fatigue. However, it also makes him more talkative, increases his blood pressure, reduces his appetite, and makes him restless. What has Alonzo likely ingested?

- a. an amphetamine
- b. THC
- c. LSD
- d. a sedative

*ANSWER:* a

161. Alicia is taking a prescription drug to help treat her narcolepsy. She finds that when she takes the drug she feels extremely restless and irritable, and she loses her appetite. What has Alicia's physician likely prescribed?

- a. stimulant
- b. hallucinogen
- c. sedative
- d. narcotic

*ANSWER:* a

162. Shelly has been feeling extremely tired for the past six months, even though she is getting lots of sleep. Shelly sees her family doctor and asks if there is something that can be prescribed to help her feel more alert and give her more energy. If her doctor does prescribe a medication, what is it most likely to be?

- a. hallucinogen
- b. narcotic
- c. amphetamine
- d. barbiturate

*ANSWER:* c

## Chapter 5 - Variations in Consciousness

163. Which of the following is a key difference between cocaine and amphetamines?
- Cocaine is derived from plants whereas amphetamines are synthetic.
  - Cocaine produces euphoria whereas amphetamines result in sedation.
  - Cocaine has predominantly emotional effects whereas amphetamines primarily affect behaviour.
  - Cocaine is snorted whereas amphetamines are typically injected.

*ANSWER:* a

164. What is a type of amphetamine that can be snorted or injected intravenously?
- ecstasy
  - ice
  - crack
  - crank

*ANSWER:* d

165. What is a type of amphetamine that can be smoked?
- ecstasy
  - crystal meth
  - crack
  - crank

*ANSWER:* d

166. Which of the following does NOT belong with the others?
- psilocybin
  - LSD
  - cocaine
  - mescaline

*ANSWER:* c

167. Renee is experiencing distortions in her sensory and perceptual processes. Additionally, she is exhibiting paranoia, nausea, and “jumbled” thought processes. Renee is most likely under the influence of what type of drug?
- stimulant
  - hallucinogen
  - sedative
  - narcotic

*ANSWER:* b

## Chapter 5 - Variations in Consciousness

168. What is the most widely used recreational drug in North America?

- a. cocaine
- b. alcohol
- c. MDMA
- d. marijuana

*ANSWER:* b

169. Javier has just taken a drug. He is experiencing some mild hallucinations and he feels like his sensory awareness has increased. Which of the following drugs has he most likely taken?

- a. heroin
- b. mescaline
- c. barbiturates
- d. alcohol

*ANSWER:* b

170. Madeline uses a nonprescription drug on a regular basis because she likes the euphoric feeling it gives her. Some of the side effects she experiences are bloodshot eyes and poor short-term memory. What has Madeline been using?

- a. hashish
- b. cocaine
- c. heroin
- d. LSD

*ANSWER:* a

171. Haley has severe glaucoma and she finds that the symptoms of her glaucoma can be relieved by using a nonprescription drug. In addition to relieving the symptoms of glaucoma, the drug relaxes her and induces a mild feeling of euphoria. What is Haley using to treat her glaucoma?

- a. barbiturates
- b. mescaline
- c. codeine
- d. marijuana

*ANSWER:* d

## Chapter 5 - Variations in Consciousness

172. Why does ecstasy not fit neatly into existing drug categories?

- a. It is a compound drug related to both amphetamines and hallucinogens.
- b. It is relatively new, and researchers haven't studied it sufficiently.
- c. It can be made a number of different ways, so it is hard to classify it.
- d. It has different effects on different people, so its effects are not easily predicted.

*ANSWER:* a

173. What does the idea of multifactorial causation in drug effects suggest?

- a. Each person will have the same physiological response to a drug, but there can be different psychological responses.
- b. The effects of a drug depend on the dosage and the user's personal makeup and experience.
- c. Taking several different drugs at the same time produces unpredictable effects.
- d. Taking several different drugs at once increases their effectiveness.

*ANSWER:* b

174. What is the term for a progressive decrease in one's response to a drug with repeated use?

- a. habituation
- b. dependency
- c. tolerance
- d. withdrawal

*ANSWER:* c

175. Bryan finds that, where he used to need only one, he now needs two or more sleeping pills to fall asleep. What does this indicate?

- a. He has become psychologically addicted to sleeping pills.
- b. He is using sleeping pills as a recreational drug.
- c. He has become physically addicted to sleeping pills.
- d. He has developed a tolerance to sleeping pills.

*ANSWER:* d

176. Seymour used to get quite a "buzz" from his first cup of coffee in the morning. Now he finds that he doesn't start to feel alert until his third cup. What has happened to Seymour?

- a. He is experiencing the effects of caffeine withdrawal.
- b. He has become caffeine intolerant.
- c. He has developed a caffeine dependency.
- d. He has developed a tolerance for caffeine.

*ANSWER:* d

## Chapter 5 - Variations in Consciousness

177. Jasmine used to feel quite giddy and light-headed after drinking a single glass of wine. Now she finds she can drink three glasses of wine before she feels giddy. What has happened to Jasmine?

- a. She is experiencing the effects of alcohol withdrawal.
- b. She has developed a tolerance for alcohol.
- c. She has become alcohol resistant.
- d. She has developed an alcohol dependency.

*ANSWER:* b

178. Among the following, which drug tends to produce tolerance most slowly?

- a. alcohol
- b. narcotics
- c. stimulants
- d. sedatives

*ANSWER:* a

179. For which of the following drugs does the tolerance level develop the most rapidly?

- a. sedatives
- b. hallucinogens
- c. alcohol
- d. cannabis

*ANSWER:* a

180. Dr. Montgomery has developed a new drug that blocks the reuptake of dopamine and norepinephrine. What effects will this drug have?

- a. It will function as a sedative.
- b. It will produce hallucinogenic effects.
- c. It will have stimulant effects in the body.
- d. It will act as an effective painkiller.

*ANSWER:* c

181. With which of the following neurotransmitter systems do the effects of cannabis appear to be associated?

- a. dopamine
- b. norepinephrine
- c. GABA
- d. serotonin

*ANSWER:* c

## Chapter 5 - Variations in Consciousness

182. Dr. Mak has developed a new drug that works as a stimulant. What will this drug likely do?

- a. It will block the reuptake of dopamine and norepinephrine.
- b. It will enhance the reuptake of dopamine and norepinephrine.
- c. It will increase activity in the GABA system.
- d. It will decrease activity in the GABA system.

*ANSWER:* a

183. What is the term for the internally produced chemicals that have actions similar to THC?

- a. endorphins
- b. interleukins
- c. dopaminoids
- d. endocannabinoids

*ANSWER:* d

184. Which of the following brain areas is considered to be part of the “reward pathway” associated with drug effects?

- a. hippocampus
- b. periaqueductal gray
- c. inferotemporal cortex
- d. nucleus accumbens

*ANSWER:* d

185. Although various drugs have various actions and effects throughout the central nervous system, what effect appears to be common across virtually all abused drugs?

- a. They are all deactivated in the synapse by acetylcholinesterase.
- b. They eventually increase activity in the mesolimbic dopamine pathway, which is important for the experience of reward.
- c. They all lead to a suppression of activity in the prefrontal cortex, which makes it more likely that an individual will become physiologically dependent.
- d. They each have an inhibitory effect on GABA.

*ANSWER:* b

## Chapter 5 - Variations in Consciousness

186. Amir has been taking a mild amphetamine for the past four months to help him cope with being a full-time student while holding down a full-time job. Now that his classes have ended, he wants to stop taking the amphetamine, but each time he tries to skip the medication, he feels very fatigued and irritable. What has happened to Amir?
- He developed a physical dependence for amphetamines.
  - He habituated to the effects of amphetamines.
  - He developed a drug tolerance for amphetamines.
  - He became amphetamine intolerant.

*ANSWER:* a

187. Hannah used to experience insomnia once or twice a week. A month ago she started taking Seconal to help her sleep, but now she finds she cannot get to sleep unless she takes a Seconal tablet. What has happened to Hannah?
- She developed a dependency on Seconal.
  - She habituated to the effects of Seconal.
  - She developed a drug tolerance for Seconal.
  - She developed pseudoinsomnia.

*ANSWER:* a

188. What is the term for a strong mental and emotional craving for a drug?
- withdrawal
  - tolerance
  - psychological dependence
  - physical dependence

*ANSWER:* c

189. Ceili is in a recovery program to deal with her alcohol dependence. One of the treatments includes going to the bars where she used to drink in order to get used to being in such places without becoming intoxicated. As she enters her local pub, Ceili starts craving alcohol and she starts to experience tremors and fever. Why?
- The smell of alcohol in the bar reminds Ceili of all the good times that she had while drinking, which she had forgotten, and this makes her upset.
  - Tremors and fever are withdrawal symptoms that occur only when the body is detoxifying from the effects of alcohol.
  - Craving and withdrawal are conditioned responses elicited by stimuli that have been paired with the effects of alcohol in the past.
  - Ceili is so frightened by being in the bar that she starts to panic.

*ANSWER:* c

## Chapter 5 - Variations in Consciousness

190. Which of the following drugs would be most likely to cause a fatal overdose?

- a. barbiturates
- b. mescaline
- c. LSD
- d. marijuana

*ANSWER:* a

191. Which of the following drugs is least likely to cause a fatal overdose?

- a. heroin
- b. cocaine
- c. barbiturates
- d. LSD

*ANSWER:* d

192. Rachel has been using a nonprescription drug on a regular basis for several years. She has now developed liver disease and ulcers, and she has been in three car accidents. Which drug is Rachel most likely a chronic user of?

- a. marijuana
- b. alcohol
- c. LSD
- d. sedatives

*ANSWER:* b

193. Which of the following is a direct effect of alcohol abuse?

- a. increased risk of sexually transmitted diseases
- b. car accidents
- c. liver disease
- d. unemployment

*ANSWER:* a

194. Which of the following drugs has been implicated as a trigger for psychotic disorders among individuals with a predisposition toward those disorders?

- a. heroin
- b. alcohol
- c. marijuana
- d. cocaine

*ANSWER:* c

## Chapter 5 - Variations in Consciousness

195. Which of the following is NOT one of the risks associated with marijuana use?

- a. respiratory diseases
- b. problems with attention and memory
- c. injury due to accidents
- d. sterility/impotence

ANSWER: d

196. Which of the following is NOT associated with chronic, heavy use of MDMA (ecstasy)?

- a. reduced fertility
- b. depression
- c. increased anxiety
- d. memory deficits

ANSWER: a

197. Research on consciousness dwindled in the early part of the 20th century after psychology was redefined as the science of behaviour. Which psychologist is most strongly associated with this shift in the field?

- a. Roger Sperry
- b. Wilhelm Wundt
- c. Sigmund Freud
- d. John Watson

ANSWER: d

198. Which of the following statements regarding the study of consciousness is accurate?

- a. Psychology began as the study of behaviour rather than the study of consciousness.
- b. Today, psychologists are generally not interested in studying issues related to consciousness.
- c. John Watson and others viewed psychology as the science of consciousness.
- d. The 1960s saw an increase in the study of variations of consciousness.

ANSWER: d

199. The effects of many psychoactive drugs depend to a large extent on users' expectations. Which of your text's unifying themes does this finding illustrate?

- a. Psychology is empirical.
- b. Psychology evolves in a sociohistorical context.
- c. Our behaviour is shaped by our cultural heritage.
- d. Our experience of the world is highly subjective.

ANSWER: d

## Chapter 5 - Variations in Consciousness

200. Which of the following is true about the amount of sleep a person needs?

- a. It varies from person to person.
- b. It differs across cultures, indicating a strong learned component to sleep needs.
- c. It is greatly reduced if one takes a 15-minute nap at midday.
- d. It is roughly the same for everyone of the same age.

*ANSWER:* a

201. Mark's mother is worried because he sleeps only six or seven hours per night, and she believes that people need at least eight hours of sleep. What would you tell her?

- a. There is probably nothing to be worried about if Mark is healthy and productive since different people need differing amounts of sleep.
- b. There is no problem, unless he spends most of his sleep time in REM sleep.
- c. She has reason to be concerned because, in the long run, Mark's lack of sleep will take its toll physically.
- d. There is nothing to worry about because young people need less sleep than older people.

*ANSWER:* a

202. Which of the following statements regarding yawning is NOT accurate?

- a. Yawning is seen in all cultures.
- b. Yawning is seen in other mammals, as well as in birds, fish, and reptiles.
- c. Yawning is correlated with sleepiness and boredom.
- d. Yawning is a response to a buildup of carbon dioxide.

*ANSWER:* d

203. Which of the following statements regarding snoring is LEAST accurate?

- a. Snoring is more common among men than women.
- b. Snoring is more frequent among people who are overweight.
- c. Snoring is associated with sleep apnea and cardiovascular disease.
- d. Snoring tends to decrease as people get older.

*ANSWER:* d

## Chapter 5 - Variations in Consciousness

204. Jamal is 40 years old; his sister Jasmine is 30 years old. Recently they both came home for their parents' anniversary party and stayed overnight. What would you expect to hear if you were to walk through the house while they were sleeping?
- All members of the family will be snoring because nearly all humans snore at some point in the night.
  - Jamal is more likely to be snoring than his sister because he is older and male.
  - If their parents are snoring, then both siblings are equally likely to be snoring because snoring is hereditary.
  - Jamal is more likely to snore during slow-wave sleep, but Jasmine is more likely to snore during REM sleep.

*ANSWER:* b

205. Which of the following is likely to cause sleep problems?
- Establish a daytime exercise program.
  - Vary the time when you go to bed at night.
  - Minimize consumption of stimulants such as caffeine and nicotine.
  - Avoid daytime naps if you're having trouble sleeping at night.

*ANSWER:* b

206. Which of the following is NOT good advice for combating insomnia?
- Develop a bedtime sleep ritual.
  - Read a dull textbook before going to bed.
  - Try not to get too stimulated during the day.
  - Avoid taking naps during the day.

*ANSWER:* c

207. Twyla insists she never dreams; she is convinced of this because she has never recalled a single dream. What would researchers likely find if Twyla were tested in a sleep lab?
- She would experience REM sleep, and she would report a dream if she was awakened from REM sleep.
  - She would wake each time she entered REM sleep and show no evidence of completing a full cycle of REM sleep.
  - She would experience REM sleep, but she would not report any dreams if she was awakened from REM sleep.
  - She would experience REM sleep, but she would report a dream only if she was awakened from slow-wave sleep.

*ANSWER:* a

## Chapter 5 - Variations in Consciousness

208. Which of the following statements about dreams is most accurate?

- a. We are most likely to recall dreams with sexual content.
- b. Dream recall fades quickly after waking.
- c. The reason we do not remember our dreams is that the content of the dream is repressed.
- d. Only about 75 percent of all people dream.

*ANSWER:* b

209. The psychoanalyst interpreted his patient's dream of riding a horse as indicative of her repressed sexual urges. What is the term used to describe those repressed urges?

- a. manifest content
- b. latent content
- c. subliminal content
- d. overt content

*ANSWER:* b

210. Manuel dreamed that he was being chased through the galaxy by ferocious interplanetary creatures. What is the psychoanalytic term for these dream events?

- a. manifest content
- b. latent content
- c. subliminal content
- d. preconscious content

*ANSWER:* a

211. Duong decided that her dream of flying reflects her desire to escape from an unfulfilling marriage. What would a contemporary dream theorist say to Duong?

- a. Her interpretation may be accurate because she is the person best equipped to decipher her dream.
- b. Her interpretation is too superficial and does not get at the latent meaning of the dream.
- c. Duong needs an analyst to interpret her dream for her because the dream is a reflection of unconscious wishes.
- d. Before any credibility is given to her interpretation, she needs to have a series of similar dreams.

*ANSWER:* a

## Chapter 5 - Variations in Consciousness

212. Morgan had a dream in which his boss appeared at his front door, and asked Morgan for a kidney. Morgan is convinced the dream represents an unconscious desire to quit his current job. What is Morgan's desire to quit his job in Freudian terms?
- the latent content of the dream
  - an interpretation of random neural activity in lower brain centres
  - the manifest content of the dream
  - an attempt to work through problems he is currently experiencing in his life

*ANSWER:* a

213. Brittany had a dream in which she was arrested by a gorilla. Brittany is convinced the dream represents an unconscious desire to cancel her upcoming wedding. What is Brittany's unconscious desire to cancel the wedding in Freudian terms?
- an interpretation of random neural activity in lower brain centres
  - an attempt to work through problems she is currently experiencing in her life
  - the latent content of the dream
  - the manifest content of the dream

*ANSWER:* c

214. Which of the following statements regarding the debate over whether alcoholism is a disease is LEAST accurate?
- The question of whether alcoholism is a disease is a matter of definition.
  - More research is needed to determine whether or not alcoholism is a disease.
  - One can inherit a genetic vulnerability to alcoholism.
  - Alcoholism disrupts a variety of vital functions.

*ANSWER:* b

215. Elaine thinks that Jerry sees the world in a very negative way because he's depressed. Which fallacy does this illustrate?
- circular fallacy
  - descriptive fallacy
  - repressive fallacy
  - nominal fallacy

*ANSWER:* d

## Chapter 5 - Variations in Consciousness

216. Tracey thinks that Aaron drinks too much because he is an alcoholic. What type of reasoning is this an example of?
- inductive reasoning
  - deductive reasoning
  - circular reasoning
  - logical reasoning

ANSWER: c

### **Erika**

Erika has been having trouble with sleep lately. In particular, she finds that her mind races with minor worries when she tries to go to sleep. When she does fall asleep, she doesn't tend to stay asleep for very long. One night, Erika has three glasses of wine before bed. She falls asleep easily that night, but even after eight hours of sleep, she wakes up feeling unrested. Erika talked to her friend Betsy about her sleep problems, and Betsy invited Erika to join her for her weekly yoga class. Betsy claimed that yoga really helped her to sleep well. In the class, Erika learned how to do some basic meditation. That night, Erika tried some of the meditation techniques just before going to bed. She had a great sleep and woke up feeling much more refreshed than she had in weeks.

217. Which of the following would you expect to see if you were to observe Erika's brain wave patterns for a night or two after she started sleeping better?
- REM rebound
  - absence of sleep spindles
  - 90 percent of sleep time spent in alpha waves
  - no evidence of dreaming

ANSWER: a

218. Erika's sleep problems are consistent with which sleep disorder?
- somnambulism
  - narcolepsy
  - insomnia
  - sleep apnea

ANSWER: c

## Chapter 5 - Variations in Consciousness

219. Which of the following is the best explanation for why meditation might help Erika sleep more easily?
- Meditation is associated with an increase in REM activity, which will make Erika feel more rested even when she is awake.
  - Meditation has been demonstrated to reduce physiological arousal, which may allow Erika to relax enough to fall asleep.
  - Meditation has very strong placebo effects, so even though it has no effect on the body Erika's expectations will allow her to fall asleep more easily.
  - Meditation is a state of consciousness that is nearly identical to slow-wave sleep, so it trains Erika's body to be ready for real sleep.

*ANSWER:* b

220. When Erika uses alcohol to sleep, why does she not wake up feeling rested?
- Alcohol increases activity in the reticular activating system, which leads to immediate sleep but makes a person feel "drained" the next day.
  - Alcohol has effects similar to those of sedatives, and may prevent her from experiencing a normal sleep pattern.
  - Alcohol is a central nervous system stimulant, so she was more physiologically aroused even while sleeping.
  - Alcohol brings on a delta-wave pattern of brain activity.

*ANSWER:* b

221. Which of the following is likely to happen if Erika continues to drink that much alcohol before bed every night?
- Erika will develop an aversion to the alcohol, because it has become associated with insomnia.
  - Erika will have an increase in slow-wave sleep each night, but no increase in REM sleep.
  - Eventually, Erika will start having a solid sleep every night as the alcohol allows her to reduce her rumination.
  - Erika will develop a tolerance to the alcohol, so she will require more alcohol to have the same effect.

*ANSWER:* d

## Chapter 5 - Variations in Consciousness

222. Compare REM and NREM sleep with respect to EEG activity, muscular activity, and cognitive activity.

*ANSWER:* NREM sleep refers to stages 1 through 4, collectively, and thus is characterized by varied EEG activity. As sleep progresses through these stages, sleep becomes progressively deeper; brain waves correspondingly decrease in frequency and increase in amplitude. Muscle tension also decreases as sleep deepens, but even in stage 4, there is sufficient muscle tone to allow the possibility of sleepwalking. Dreams occasionally occur during NREM sleep, but these tend to be brief and fragile.

REM sleep is also a deep sleep, in the sense that it is relatively difficult to awaken a person from this stage. Muscle tone is so relaxed as to leave the body virtually paralyzed, precluding the possibility of sleepwalking. The eyes, however, move beneath closed lids. The EEG shows beta activity, as if the person was wide awake. This paradoxical finding can be accounted for by the fact that REM is the stage during which most dreaming occurs.

223. Describe the effects of complete, partial, and selective sleep deprivation. What, if anything, do these effects tell us about why we sleep?

*ANSWER:* Complete sleep deprivation for one or more nights is associated with feelings of sleepiness, irritability, and difficulty concentrating. Nevertheless, sleep-deprived people function surprisingly well, thus telling us little about why we sleep. Partial sleep deprivation likewise has inconsistent effects. People who get substantially less sleep than they are accustomed to do feel sleepy, and may suffer impaired performance on tasks that are long, difficult, or tedious. These results also tell us little about the functions of sleep.

The existence of distinct sleep stages implies that each stage may have its own function. To investigate this possibility, researchers have selectively deprived subjects of either REM sleep or slow-wave sleep. In both kinds of selective deprivation, subjects experience an increased need for that stage of sleep specifically. In addition, both REM deprivation and slow-wave deprivation produce a “rebound effect” in which subjects make up for lost time when allowed to sleep normally again. None of these studies tell us the precise functions of sleep, but they do demonstrate definite and independent needs for both REM and slow-wave sleep.

## Chapter 5 - Variations in Consciousness

224. What do people tend to dream about, and what theories have been proposed to explain why people dream at all?

*ANSWER:* Above all, dreams tend to be personal. They generally involve people we know, in settings that are familiar to us. We are particularly likely to dream about current worries, conflicts, and stressors. There is no universally agreed-upon explanation for why we dream. Freud proposed that dreams are a form of “wishful thinking” in which we have the opportunity to gratify impulses that have gone unfulfilled in our waking lives. Other theorists take a more cognitive view, proposing that dreams provide an opportunity to engage in creative problem solving. Both of these views mesh nicely with available data regarding the typical content of dreams. A very different view is the activation-synthesis model of dreaming, which proposes that dreams are simply byproducts of neural activation during REM sleep. In this view, the content of dreams is almost incidental. Whereas the wish-fulfillment and problem-solving theories both regard the “wide awake” brain as the effect of dreaming, the activation-synthesis model views the “wide awake” brain as the cause of dreaming.

225. Compare and contrast the “role-playing” and “altered state” views of hypnosis.

*ANSWER:* Both views are attempts to account for known hypnotic phenomena, which include heightened suggestibility, relaxation, focused attention, and enhanced fantasy. Proponents of the “role-playing” view regard hypnosis as a normal state of consciousness in which suggestible people act “as if” they are hypnotized by enacting their role expectations about how hypnotized people should behave. In support of this view, there is evidence that many supposed hypnotic phenomena can be duplicated by nonhypnotized subjects. Other theorists continue to insist that hypnosis is a unique, altered state of consciousness. For example, Ernest Hilgard maintains that hypnosis creates a dissociation in consciousness—a splitting off of mental processes into two separate, simultaneous streams of awareness. This view is made plausible by the fact that divided consciousness is a common, normal experience (as in “highway hypnosis,” for example). At present, there is no resolution to the debate between these two opposing views.

## Chapter 5 - Variations in Consciousness

226. Given what you know about the effects of marijuana, both short term and long term, what is your position on the current debate in Canada regarding legalization of marijuana. Support your answer using at least three pieces of evidence.

*ANSWER:* A good answer will provide evidence consistent with the position chosen (either side of the argument can be supported).

**Pro-legalization:** There are a number of therapeutic benefits to THC use, including treatment of glaucoma and chemotherapy-induced nausea/vomiting. The risk of dependence (both physiological and psychological) is relatively low, and there is little risk of overdose for users. Although there are risks associated with smoking marijuana, if THC is administered in other forms there is no risk to respiratory systems. Intoxication associated with THC does cause impairment that is contraindicated for driving and other dangerous tasks, but this is no different from other legal drugs like alcohol or prescription sedatives.

**Anti-legalization:** Although there are apparent benefits to THC use for medicinal purposes, this is not the most common use of marijuana. A large proportion of adolescents are already using marijuana, and this rate is likely to increase with legalization. Intoxication with THC is associated with sluggishness, short-term memory deficits, and anxiety or paranoia in some instances. Chronic use of large doses of smoked marijuana has been associated with lung cancer and other respiratory diseases, as well as long-term impairments in attention and memory.