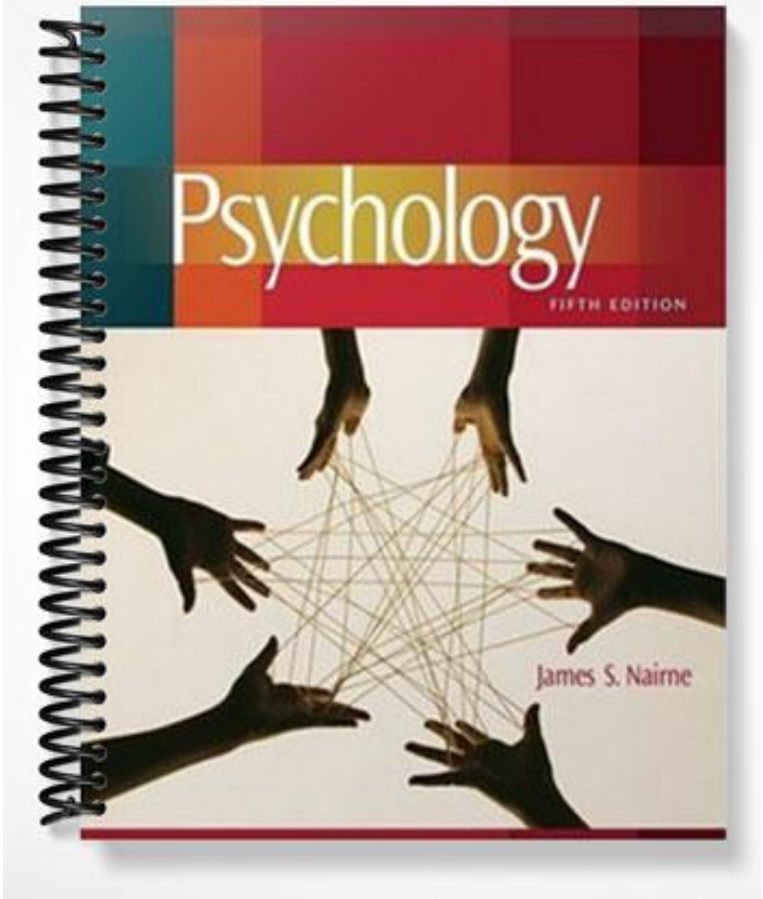
TEST BANK



Chapter 2 (Multiple Choice)--The Tools of Psychological Research

Student: _____

1. The scientific method always:

   A. begins with observation and ends with generation of a hypothesis
   B. begins with generation of a hypothesis and ends with systematic observation
   C. begins and ends with observation
   D. begins with the detection of regularities and ends with generation of a hypothesis

2. The scientific method involves:

   A. observation
   B. generation of a hypothesis
   C. testing of a hypothesis for accuracy
   D. all of these choices

3. Which of the following is NOT involved in the scientific method?

   A. observation
   B. generation of a hypothesis
   C. testing a hypothesis for accuracy
   D. clairvoyance

4. A researcher who observes a behavior, detects regularities in the behavior, generates a hypothesis about the behavior, and checks the accuracy of his or her predictions through additional observation is utilizing:

   A. the scientific method
   B. naturalistic observation
   C. statistical reasoning
   D. good experimental control

5. A hypothesis:

   A. is a conclusion based on the results of a research study
   B. is not necessary if the scientific method is being used
   C. normally wouldn't be generated until a study has been completed
   D. is a prediction about the characteristics of a behavior under investigation

6. A prediction about the characteristics of a behavior under investigation is called:

   A. an inferential statistic
   B. an operational definition
   C. a hypothesis
   D. a dependent variable

7. Dr. Bores predicts that if the temperature of a room is increased, then individuals are more likely to act aggressively. Dr. Bores's prediction is an example of:

   A. a hypothesis
   B. an independent variable
   C. an operational definition
   D. a dependent variable

8. Dr. Sanchez predicts that if the noise level in a room is increased, then individuals are more likely to make errors on a complex task. Dr. Sanchez's prediction is an example of:

   A. an independent variable
   B. an operational definition
   C. a hypothesis
   D. a dependent variable

9. Dr. Cakmak predicts that if the level of lighting on an assembly line is reduced, then worker productivity will increase. Dr. Cakmak's prediction is an example of:

   A. an independent variable
   B. a hypothesis
   C. an operational definition
   D. a dependent variable

10. Operational definitions:

    A. ensure the results of a scientific investigation will be externally valid
    B. define concepts in terms of how they will be measured
    C. are only necessary in experimental studies
    D. define concepts in abstract terms

11. When concepts are defined in terms of the way in which they will be measured, those concepts are said to be:

    A. hypothetical variables
    B. externally valid
    C. internally valid
    D. operationally defined

12. Defining intelligence in terms of performance on a psychological test would:

    A. represent an operational definition of intelligence
    B. be a testable hypothesis about intelligence
    C. provide empirical verification of intelligence
    D. violate general research ethics

13. A good operational definition of aggression might be:

    A. behavior intended to harm someone or something
    B. a violent response most often accompanying frustration or anger directed toward someone
    C. the number of times someone hits, kicks, or yells at a person or an object within a 1-hour period
    D. a personality characteristic in which the individual tends to solve problems with violence

14. A good operational definition of memory might be:

    A. number of words recalled from a list containing 20 words
    B. number of comprehension questions answered correctly following the processing of a short narrative
    C. number of words named correctly when cued with their written definitions
    D. All of these choices

15. A good operational definition of wealth might be:

    A. Annual salary
    B. Total value of assets
    C. Total value of assets minus total value of debts
    D. All of these choices

16. Which of the following is NOT a good operational definition of intelligence?

    A. Score on IQ test
    B. Score on a general knowledge test
    C. Performance in theatrical performance
    D. None of these choices - all are good operational definitions of intelligence

17. Dr. Boser is studying family relations and plans to define family cohesiveness in terms of the number of weekly activities families do together. Defining family cohesiveness in this way would:

    A. be a testable hypothesis
    B. provide empirical verification of the concept
    C. violate general research ethics
    D. represent an operational definition

18. Dr. Pointel is studying aggression and plans to define aggression in terms of the number of times an individual actually strikes another person. Defining aggression in this way would:

    A. be a testable hypothesis
    B. provide empirical verification of the concept
    C. violate general research ethics
    D. represent an operational definition

19. Dr. Barant is studying reaction times and plans to define reaction time in terms of the time it takes to press a button on a display panel. Defining reaction time in this way would:

    A. be a testable hypothesis
    B. provide empirical verification of the concept
    C. represent an operational definition
    D. violate general research ethics

20. Dr. Beaudette is studying parent-infant attachment and plans to define attachment in terms of the time it takes for a parent to respond to an infant's cries. Defining attachment in this way would:

    A. be a testable hypothesis
    B. provide empirical verification of the concept
    C. represent an operational definition
    D. violate general research ethics

21. Dr. Meir is conducting a study and uses heart rate as a measure of general anxiety level. Defining anxiety level in this way would:

    A. represent an operational definition
    B. be a testable hypothesis
    C. provide empirical verification of the concept
    D. violate general research ethics

22. Descriptive research refers to:

    A. methods used to assess whether two variables vary together in a systematic way
    B. methods involving active manipulation of some aspect of the environment
    C. any research that uses invasive methods for observing the target behavior
    D. the methods that underlie the direct observation and description of behavior

23. People's behavior sometimes changes simply because they are being observed. This effect is known as:

    A. external validity
    B. standard deviation
    C. experimental control
    D. reactivity

24. Frank was a participant in a research study. He felt that his behavior during the study was different from his usual behavior simply because he was being observed. Frank was exhibiting which of the following:

    A. Placebo effect
    B. Experimental control
    C. Naturalistic observation
    D. Reactivity

25. Reactivity occurs when:

    A. researchers react to the results of a study before the study is completed
    B. there is a strong public response to a published research study
    C. an individual's behavior is changed by the process of being observed
    D. researchers attempt to manipulate or change the behavior of research participants

26. The students in Dr. Kent's class are normally very active and there is a high level of classroom participation. However, recently there was an observer in the classroom and the participation level was very low. The change in the responsiveness of the students in Dr. Kent's class illustrates the concept of:

    A. experimental control
    B. negative correlation
    C. reactivity
    D. systematic observation

27. Production at the factory was poor, so management had a team of observers film the workers on the job. The films showed everyone working at top speed, and production was the highest in a year. A likely explanation for the change in the workers' behavior is:

    A. external validity
    B. the placebo effect
    C. reactivity
    D. random assignment

28. Wilma can normally type very quickly, but she finds that when her boss watches her type she types much more slowly. Wilma's change in typing speed illustrates the concept of:

    A. experimental control
    B. negative correlation
    C. reactivity
    D. systematic observation

29. External validity refers to:

A. measuring the results of a behavior, rather than the behavior itself
B. any research result obtained using noninvasive observation procedures
C. effectively controlling any potentially confounding variables in an experiment
D. how well the results of an observation will generalize to other situations

30. When the results of a scientific observation are representative of real life, the results:

A. have internal validity
B. have scientific regularity
C. have been operationally defined
D. have external validity

31. Professor Langerman conducted a study which showed that participants were less efficient when they worked in groups, compared to when they worked alone. Professor Langerman has also noticed that compared to individual projects, students are more likely to hand group projects in late. This suggests that the results Professor Langerman obtained in the efficiency study:

A. are internally valid
B. are operationally defined
C. will not generalize to everyday settings
D. have external validity

32. Professor Haskins conducted a study which showed that participants remembered new material better when they learned the material and were tested on the material in the same setting. Professor Haskins has also noticed that students tend to do better on term exams when they take the exams in the same room as the one in which the class normally met. This suggests that the results Professor Haskins obtained in the memory study:

A. are internally valid
B. are operationally defined
C. will not generalize to everyday settings
D. have external validity

33. Naturalistic observation involves:

A. asking a representative sample of individuals to provide their opinions
B. recording naturally occurring behavior without any interference
C. carefully observing a single individual in detail
D. observing the behavior of animals in a laboratory setting

34. When a researcher records naturally occurring behavior, without any interference, the researcher is engaged in:

A. correlational research
B. experimentation
C. naturalistic observation
D. case study research

35. One reason researchers use naturalistic observation is to:

A. increase reactivity in their results
B. improve the external validity of their findings
C. establish cause and effect
D. increase the standard deviation of their observations

36. A researcher who stands on a street corner, recording the gender of the driver of each vehicle, and whether or not the driver comes to a complete stop at the stop sign, is engaged in:

    A. psychological testing
    B. naturalistic observation
    C. experimentation
    D. case study research

37. A researcher who waits by a store exit, recording the general age of each customer, and whether the customer uses the automatic or manual door, is engaged in:

    A. naturalistic observation
    B. psychological testing
    C. experimentation
    D. case study research

38. A researcher who goes to a playground and records the amount of time the children spend playing at each activity is engaged in:

    A. correlational research
    B. naturalistic observation
    C. experimentation
    D. case study research

39. Participant observation occurs when:

    A. a representative sample of individuals is asked for their opinion
    B. participants in a research study observe and record the behavior of the researcher
    C. an observer attempts to become part of the activities being studied
    D. a single individual is studied in-depth

40. When a researcher attempts to become part of the activities being studied, in order to unobtrusively observe the behavior under investigation, the researcher is engaging in:

    A. participant observation
    B. case study research
    C. correlational research
    D. survey research

41. Channel 6 News heard reports that security regulations were being ignored at the local airport. They had a reporter get a job at the airport so he could find out how security was maintained. This technique is:

    A. a case study
    B. introspection
    C. participant observation
    D. naturalistic observation

42. Tess went to a day care center to study social interactions in young children. She used a hidden camera and she told the children she was a student teacher working there for the day. In this case Tess is using:

    A. the case study method of research
    B. survey research
    C. correlational research
    D. participant observation as a method of research

43. Psychologists who pretended to be "doomsday" believers in order to infiltrate a cult group, and study and record the reactions of the group members, were using:

A. participant observation as a method of research
B. the case study method of research
C. survey research
D. correlational research

44. Psychologists who pretended to be mentally ill in order to be admitted to various mental health facilities, and then investigated conditions within those facilities, were using:

A. participant observation as a method of research
B. the case study method of research
C. survey research
D. correlational research

45. A group of researchers wanted to investigate allegations of sexual harassment on a company's assembly line. They wanted their observations to be unobtrusive, so they took jobs working on the assembly line and told their fellow employees they were "new hires." In this case the researchers were using:

A. the case study method of research
B. survey research
C. correlational research
D. participant observation as a method of research

46. Researchers who investigate the social habits of teenagers by measuring the content of the litter they leave behind are engaged in:

A. invasive observation
B. case study research
C. indirect naturalistic observation
D. participant observation

47. Museum administrators who determine the popularity of various exhibits by measuring how quickly the floor tiles in front of each exhibit wear out are engaged in:

A. invasive observation
B. case study research
C. indirect naturalistic observation
D. participant observation

48. City administrators who plan road improvements and monitor traffic patterns by studying how often road repairs are required at various intersections are engaged in:

A. invasive observation
B. indirect naturalistic observation
C. case study research
D. participant observation

49. The case study is a research method in which:

A. the research effort focuses on a single individual
B. a representative sample of individuals is asked for their opinions
C. selected individuals are carefully observed in their natural environments
D. a researcher tries to determine the extent to which two variables influence each other

50. The research method that focuses on a single individual is:

A. naturalistic observation
B. case study research
C. the survey method
D. correlational research

51. Dr. Nelson has been treating a patient for Tourette's syndrome for many years using a variety of therapies. Over the years, he kept detailed records of the patient's behaviors. Dr. Nelson's work is an example of a(n):

A. experiment
B. case study
C. survey
D. all of these choices

52. One of the main concerns with the case study method of research is that:

A. a single case is seldom able to provide a historical perspective
B. the experiences reported may not be representative of other cases
C. hypotheses cannot be generated about the origin of the behavior
D. they cannot be used to study rare or unusual events

53. Sometimes the observations from case studies fail to generalize to other individuals or situations. This represents a problem with:

A. reactivity
B. confounding (third) variables
C. external validity
D. internal validity

54. In order to better understand the links between brain function and behavior, Dr. Vannoni carefully observed and extensively questioned two stroke victims. Based on this information, it is most likely that Dr. Vannoni was conducting:

A. correlational research
B. survey research
C. case study research
D. experimental research

55. In order to better understand the factors that might produce exceptional skills, Dr. Pendergrast carefully observed and extensively questioned three child prodigies. Based on this information, it is most likely that Dr. Pendergrast was conducting:

A. case study research
B. correlational research
C. survey research
D. experimental research

56. Dr. Helmsey was investigating the memory changes associated with electrocution and located three individuals who had survived lightening strikes. These individuals were tested extensively and questioned in detail about their experiences. Dr. Helmsey's research represents the research method known as:

A. correlational research
B. case study research
C. survey research
D. experimental research

57. Dr. Greene was investigating the effects of weightlessness on general psychological functioning. Dr. Greene was able to locate three former astronauts who had experienced at least 10 days of weightlessness in space. These individuals were tested extensively and questioned in detail about their experiences. Dr. Greene's research represents:

    A. the correlational method of research
    B. case study research
    C. survey research
    D. the experimental method of research

58. A survey is a research method in which:

    A. selected individuals are carefully observed in their natural environments
    B. a representative sample of individuals is asked for their opinions
    C. a single individual is studied in great detail
    D. a researcher tries to determine the extent to which two variables influence each other

59. The research method in which a representative sample of individuals is asked for their opinions is:

    A. case study research
    B. correlational research
    C. a survey
    D. naturalistic observation

60. In order to learn whether the people in Hyatt opposed or supported the expansion of the town's elementary school, Mayor Black randomly selected and interviewed 100 of the town's 10,000 residents. In this instance, the 10,000 people who live in Hyatt would be considered to be:

    A. a representative sample
    B. the dependent variable
    C. a population
    D. the independent variable

61. In order to learn whether the people in her state opposed or supported increased speed limits, Representative Jackson randomly surveyed 1,000 of the state's residents. In this instance, all the people who live in Representative Jackson's home state would be considered to be:

    A. a population
    B. a representative sample
    C. the dependent variable
    D. the independent variable

62. In order to learn whether the people in Newburg opposed or supported the expansion of the town's elementary school, Mayor Tyson randomly selected and interviewed 100 of the town's 10,000 residents. In this instance, the 100 people who were interviewed by the Mayor would be considered to be:

    A. a population
    B. a representative sample
    C. the dependent variable
    D. the independent variable

63. In order to learn whether the people in his state opposed or supported increased speed limits, Representative Simpson randomly surveyed 1,000 of the state's residents. In this instance, the 1,000 people whom Representative Simpson surveyed would be considered to be:

    A. a population
    B. the dependent variable
    C. a representative sample
    D. the independent variable

64. A researcher who conducts a survey by asking volunteers to phone in with their opinions is likely to have a:

A. representative sample
B. biased sample
C. random sample
D. random population

65. A researcher who conducts a survey by asking volunteers to mail in a form that is printed in the local newspaper is likely to have a:

A. representative sample
B. random sample
C. random population
D. biased sample

66. In a random sample:

A. every tenth person is asked to take part in the study
B. everyone in the target population has an equal likelihood of being selected
C. individuals who take part in a survey are all asked different sets of questions
D. participants with strong opinions are excluded from the survey

67. When everyone in the target population had an equal likelihood of being selected to take part in a survey, the researcher has selected a:

A. biased sample
B. a random population
C. nonrepresentative sample
D. random sample

68. Survey results will be more likely to accurately represent the opinions of the entire population if:

A. random sampling is used
B. a control group is used
C. a double-blind design is used
D. a single-blind design is used

69. Random sampling of a population is most likely to:

A. reduce external validity
B. reduce reactivity
C. produce a representative sample
D. allow validation of the data

70. Which of the following occurs when each person in a population has an equal chance of being selected to participate in a research study:

A. true experiment
B. random assignment
C. internal validity
D. random sampling

71. Naturalistic observation, case studies, and surveys are all examples of:

A. experimental research
B. descriptive research
C. double-blind research designs
D. single-blind research designs

72. Achievement tests measure an individual's:

A. current level of knowledge in a particular subject
B. potential for success in a given area
C. general intelligence and overall level of cognitive function
D. basic personality characteristics

73. At the end of her psychology class, Railene took a test designed to assess how well she had mastered the material. Railene's psychology final exam would most likely be considered to be:

A. an intelligence test
B. an achievement test
C. an aptitude test
D. a standardized correlational test

74. An aptitude test measures:

A. basic personality characteristics
B. current level of knowledge in a particular subject
C. general intelligence and overall level of cognitive function
D. potential for success in a given area

75. A test that is designed to measure one's potential success in a given area of study or profession is:

A. An achievement test
B. A personality test
C. An aptitude test
D. A reactivity test

76. In trying to determine which career would fit best with your abilities and interests, you would probably want to take a test that would measure your potential or talent for specific kinds of activities. The type of test that would measure this sort of potential would be:

A. an aptitude test
B. an intelligence test
C. a personalized case study
D. an achievement test

77. Measures of central tendency:

A. provide a value around which scores in a data set tend to cluster
B. indicate how much the scores in a data set differ from one another
C. can be used to decide whether the observed behavior in a sample is representative of some larger sample
D. assess whether two variables vary together in a systematic way

78. The value around which scores in a data set tend to cluster is called:

A. a measure of variability
B. a correlational coefficient
C. the standard deviation
D. a measure of central tendency

79. The mean for a data set is:

A. the most frequently occurring score
B. the middle point in the set of scores
C. the difference between the largest and smallest scores
D. the arithmetic average of the set of scores

80. The arithmetic average of a set of scores is:

A. the mode for the data set
B. the mean for the data set
C. the median for the data set
D. the standard deviation for the data set

81. On a recent quiz Lena and Robert both scored 7 points, Russell scored 2 points, and Carol scored 4 points. For these four students, the mean score on the quiz was:

A. 7.0 points
B. 5.0 points
C. 5.5 points
D. 4.3 points

82. A researcher timed three rats as they ran through a maze. The first rat took 10 seconds, the second rat took 12 seconds, and the last rat took 17 seconds. For these three rats, the mean time to run the maze was:

A. 12 seconds
B. 10 seconds
C. 17 seconds
D. 13 seconds

83. The mode for a data set is:

A. the arithmetic average of the set of scores
B. the middle point in the set of scores
C. the most frequently occurring score
D. the difference between the largest and smallest scores

84. The most frequently occurring score in a set of scores is:

A. the mean for the data set
B. the median for the data set
C. the mode for the data set
D. the standard deviation for the data set

85. Which of the following is NOT a measure of central tendency:

A. the mean
B. the median
C. the mode
D. the standard deviation

86. On a recent quiz, Ganesa and Javon both scored 7 points, Armand scored 2 points, and Odette scored 4 points. For these four students, the mode for the quiz was:

A. 5.0 points
B. 7.0 points
C. 5.5 points
D. 4.3 points

87. Dr. Pharis was studying memory in young children. Five children were asked to remember a list of words. Brad and Beverly each remembered 7 words. Sam remembered 6 words, Sally remembered 5 words, and Chad remembered 4 words. For these five children, the mode for the number of words that were recalled was:

A. 6.0 words
B. 6.5 words
C. 7.0 words
D. 5.8 words

88. The median for a data set is:

A. the arithmetic average of the set of scores
B. the middle point in the set of scores
C. the most frequently occurring score
D. the difference between the largest and smallest scores

89. The middle point in a set of scores is:

A. the median for the data set
B. the mean for the data set
C. the mode for the data set
D. the standard deviation for the data set

90. A researcher timed three rats as they ran through a maze. The first rat took 10 seconds, the second rat took 12 seconds, and the last rat took 17 seconds. For these three rats, the median time to run the maze was:

A. 10 seconds
B. 17 seconds
C. 12 seconds
D. 13 seconds

91. Carmen is in a class of 15 students. On the most recent exam, 7 students earned scores lower than Carmen's score, and 7 students scored higher than Carmen did. Based on this information, you can conclude that Carmen's score is:

A. equal to the mode for her class
B. equivalent to the mean for her class
C. the same as the median score for her class
D. the same as all three measures of central tendency for that particular exam

92. Dr. Gates was studying memory in young children. Five children were asked to remember a list of words. Judd and Caroline each remembered 7 words. Byron remembered 6 words, Eve remembered 5 words, and Gunther remembered 4 words. For these five children, the median number of words that were recalled was:

A. 6.5 words
B. 6.0 words
C. 7.0 words
D. 5.8 words

93. You obtained the following data (1, 1, 2, 4, 7). The mean, median, and mode of these data are:

A. 2, 1, 4
B. 3, 2, 1
C. 2, 3, 1
D. 1, 4, 2

94. Professor Jackson obtained the following scores on his first exam (100, 99, 99, 81, 72). The mode of these scores are:

A. 100
B. 99
C. 81
D. 72

95. The measure of central tendency that is most sensitive to extreme scores within the data set is:

A. the mode
B. the median
C. the standard deviation
D. the mean

96. The range for a data set is:

A. the difference between the largest and smallest scores
B. the arithmetic average of the set of scores
C. the most frequently occurring score
D. the middle point in the set of scores

97. The difference between the largest and smallest scores in a set of scores is:

A. the mean for the data set
B. the range for the data set
C. the mode for the data set
D. the median for the data set

98. Professor Yang observed the following scores in her first exam (100, 93, 81, 60). The range for these scores is:

A. About 100
B. About 81
C. About 40
D. About 1

99. Which of the following is a measure of variability:

A. the mean
B. the range
C. the mode
D. the median

100. Which of the following is a measure of variability:

A. the mean
B. the standard deviation
C. the mode
D. the median

101. The standard deviation for a data set:

A. is the arithmetic average of the set of scores
B. is the middle point in the set of scores
C. is the difference between the largest and smallest scores
D. indicates how much the individual scores vary from the mean

102. The value that indicates how much the individual scores in a data set vary from the mean is:

A. the standard deviation for the data set
B. the average for the data set
C. the mode for the data set
D. the median for the data set

103. Descriptive statistics help researchers:

A. decide whether the behavior observed in a sample is representative of some larger population
B. determine the likelihood that the pattern in the collected data occurred by chance
C. describe the data obtained in a research study
D. measure an individual's current level of knowledge in a particular area

104. Inferential statistics help researchers:

A. describe the data obtained in a research study
B. measure a person's potential for success in a given area
C. decide whether the behavior observed in a sample is representative of some larger population
D. measure an individual's current level of knowledge in a particular area

105. Inferential statistics help researchers:

A. describe the data obtained in a research study
B. determine the likelihood that the pattern in the collected data occurred by chance
C. measure a person's potential for success in a given area
D. measure an individual's current level of knowledge in a particular area

106. Dr. Burns is trying to determine whether the behavior that was observed in a sample is representative of behavior in the larger population. To help in making this determination, Dr. Burns should use:

A. inferential statistics
B. descriptive statistics
C. case study analysis
D. operational definitions

107. Dr. Duggan is trying to determine the likelihood that the pattern of responses in the data collected during a recent study occurred by chance. To help in making this determination, Dr. Duggan should use:

A. inferential statistics
B. descriptive statistics
C. case study analysis
D. operational definitions

108. You read that there is a statistically significant difference in the rate of depression among men and women. This means that the difference is not likely to be due to:

A. chance
B. reactivity
C. a confounded variable
D. an expectancy effect

109. The law of large numbers suggests that:

A. small samples cannot be expected to provide reliable indications of the true nature of events
B. the larger the sample size, the less likely it is that conclusions based on the sample will be accurate
C. the more people who know about a study, the less likely it is that deception can be used effectively
D. people who live in big cities will be less likely to volunteer for research studies

110. The law of large numbers suggests that:

A. small samples will provide the most reliable indications of the true nature of events
B. the less people who know about a study, the more likely it is that deception can be used effectively
C. the larger the sample size, the more likely it is that the conclusions based on the sample will be accurate
D. people who live in small towns will be more likely to volunteer for research studies

111. Teachers in a small town are protesting because their pay raises are based on teaching evaluations of one class period each year. They claim that such limited sampling of their teaching is likely to produce inaccurate evaluations, and they want at least five observations. The concept that supports their argument is:

A. operational definition
B. the law of large numbers
C. random assignment
D. the placebo effect

112. Nelson is an avid baseball fan who is excited by the fact that the hometown team won its first three games of the season. Based on this early performance, Nelson is looking forward to a record-breaking season. This faulty reasoning illustrates an error in statistical reasoning because:

A. later performance is seldom related to early performance
B. winning streaks usually only last for a short period of time
C. small samples are the most accurate in representing the population
D. small samples cannot be expected to provide reliable indications of "true" performance

113. Two researchers are trying to determine the true proportion of male and female babies born in certain Third World countries. Researcher 1 obtains the birth records from one hospital for a one-month period. Researcher 2 obtains the birth records from ten hospitals for an entire year. Based on the law of large numbers, it is likely that:

A. Researcher 1 will produce the most accurate results because smaller samples tend to be representative
B. Researcher 2 will produce the most accurate results because larger samples tend to be more representative
C. both researchers will have equally accurate results because sample size doesn't affect research results
D. neither researcher will have accurate results because the samples were not selected using the scientific method

114. Correlational research is a research method in which:

A. a representative sample of individuals is asked for their opinions
B. the research effort focuses on a single case
C. selected individuals are carefully observed in their natural environments
D. a researcher tries to determine the extent to which two variables influence each other

115. The research method which would be used to assess whether two variables vary together in a systematic way is:

A. case study research
B. naturalistic observation
C. correlational research
D. the survey method

116. As Behavior A decreases, Behavior B decreases by an equal amount. This pattern reflects:

A. a negative correlation
B. a zero correlation
C. a positive correlation
D. a third variable correlation

117. Dr. Phillips predicts that if the temperature of a room is increased, then individuals are more likely to act aggressively. This suggests that Dr. Phillips believes room temperature and aggression are:

A. negatively correlated
B. uncorrelated
C. positively correlated
D. both dependent variables

118. Dr. Ives predicts that if the noise level in a room is increased, then individuals are more likely to make errors on a complex task. This suggests that Dr. Ives believes noise level and errors are:

A. negatively correlated
B. uncorrelated
C. both dependent variables
D. positively correlated

119. If a correlation coefficient has a positive sign, it indicates that:

A. the two factors being measured move in opposite directions
B. the two factors being measured move in the same direction
C. there is no relationship between the two factors being measured
D. there is a significant relationship between the two factors being measured

120. Suppose the correlation between Behaviors X and Y is +.90 This means that:

A. as Behavior X increases, Behavior Y would be expected to decrease
B. as Behavior X increases, Behavior Y would be expected to increase
C. as Behavior X decreases, Behavior Y would be expected to increase
D. there is no predictable relationship between Behavior X and Behavior Y

121. As Behavior X increases, Behavior Y is expected to decrease. The correlation between X and Y is:

A. zero
B. negative
C. positive
D. it is impossible to determine with the information provided

122. As Behavior X increases, Behavior Y is expected to increase. The correlation between X and Y is:

A. zero
B. negative
C. positive
D. it is impossible to determine with the information provided

123. Imagine that the personality traits of openness and extroversion have a strong positive correlation. If Thaddeus has a score in openness that is extremely low:

A. he will probably have a score in extroversion that is quite high
B. he will probably also have a low score in extroversion
C. it is impossible to predict how he is likely to score on the extroversion scale without more information
D. his extroversion score will probably be about average (neither high nor low)

124. Dr. Theiss has found that students who score higher than 85% on the first midterm tend to earn scores of 75% or better on the final exam, while students who score less than 60% on the first midterm often end up with a failing grade on the final exam. This suggests that:

A. there is a relatively strong positive correlation between the scores on the first midterm and the scores on the final exam
B. there is a relatively strong negative correlation between the scores on the final exam and the scores on the first midterm
C. the scores on the final exam and the first midterm are not very highly correlated
D. students who do poorly on the first midterm give up and study less for the final exam

125. Dr. Kipp predicts that if the level of lighting on an assembly line is reduced, then worker productivity will increase. This suggests that Dr. Kipp believes lighting level and productivity are:

A. positively correlated
B. negatively correlated
C. uncorrelated
D. both dependent variables

126. Dr. Nodd predicts that if parents are nurturing and responsive, then children are less likely to act aggressively. This suggests that Dr. Nodd believes parental nurturance and children's aggression are:

A. positively correlated
B. uncorrelated
C. negatively correlated
D. both dependent variables

127. If a correlation coefficient has a negative sign, it indicates that:

A. the two factors being measured move in the same direction
B. the two factors being measured move in opposite directions
C. there is no relationship between the two factors being measured
D. there is a significant relationship between the two factors being measured

128. Researchers found a moderate correlation between the length of a customer's driveway and the size of the tips the customer gave pizza delivery people. The longer the driveway, the smaller the tip the delivery person received. The correlation coefficient that most likely represents this relationship would be:

A. +.90
B. -.45
C. +.45
D. -.90

129. Imagine that the personality traits of conscientiousness and extroversion have a strong negative correlation. If Heidi has a score in conscientiousness that is extremely low:

A. she will probably also have a low score in extroversion
B. it is impossible to predict how she is likely to score on the extroversion scale without more information
C. she will probably have a score in extroversion that is quite high
D. her extroversion score would probably be about average (neither high nor low)

130. Of the following, the correlation coefficient that indicates the strongest relationship between the two variables being measured is:

A. -0.89
B. +0.65
C. 0.00
D. +3.46

131. Which of the following is the maximum value for a correlation coefficient?

A. +0.50
B. +0.90
C. +1.00
D. +5.00

132. Which of the following is the minimum value for a correlation coefficient?

A. -0.50
B. -0.90
C. -1.00
D. -5.00

133. Which of the following is the range of possible values for a correlation coefficient?

A. -5.00 to +5.00
B. -2.00 to +2.00
C. -1.00 to +1.00
D. 0.00 to +1.00

134. Of the following, the correlation coefficient that indicates the weakest relationship between the two variables being measured is:

A. +0.01
B. +0.95
C. -0.69
D. -4.50

135. Suppose that Louise earned the highest score in the entire class on the first midterm exam, and in her class the final exam scores were the following: 12, 23, 34, 45, 56, 67, 78, 89, and 92. If the correlation between midterm exam scores and final exam scores for this class is +0.01:

A. you should expect that Louise earned the score of 56
B. you should expect that Louise earned the score of 92
C. you should expect that Louise earned the score of 12
D. you wouldn't be able to guess Louise's score because the correlation is so low

136. Suppose that Ralph earned the highest score in the entire class on the first midterm exam, and in his class the final exam scores were the following: 12, 23, 34, 45, 56, 67, 78, 89, and 92. If the correlation between midterm exam scores and final exam scores for this class is +0.97:

A. you should expect that Ralph earned the score of 12
B. you should expect that Ralph earned the score of 56
C. you should expect that Ralph earned the score of 92
D. you wouldn't be able to guess Ralph's score because the correlation is so low

137. Dr. Ep has found that no matter how students score on the first midterm, all the students in her class tend to score between 75% and 80% on the final exam. This suggests that:

A. there is a relatively strong positive correlation between the scores on the first midterm and the scores on the final exam
B. there is a relatively strong negative correlation between the scores on the final exam and the scores on the first midterm
C. the scores on the final exam and the first midterm are not very highly correlated
D. Dr. Ep should change the final exam so it is more fair to students who are not doing well in the course

138. When a correlation is not statistically different from zero:

A. a clear relationship exists between the two measures of interest, but the values move in opposite directions
B. knowing the value of one measure does not allow you to predict the value of the second measure with an accuracy greater than chance
C. high values on one measure will generally be associated with low values on the second measure
D. low values on one measure will generally be associated with low values on the second measure

139. In a scatterplot or scatter diagram:

A. the frequency for each score is plotted on the horizontal axis of the graph
B. paired X and Y scores for each subject are plotted as single points
C. a frequency polygon is used to plot the direction and strength of the relationship
D. high scores are plotted on the X axis and low scores are plotted on the Y axis

140. When Calvin creates a scatterplot that shows the amount of sleep and grades in school, the points on the scatterplot fall roughly along a line that slants up and to the right. Based on his scatterplot, Calvin can conclude that amount of sleep and grades in school:

A. are positively correlated
B. are negatively correlated
C. are only weakly correlated
D. have a cause-and-effect relationship

141. When Hyacinth creates a scatterplot that shows the number of bystanders who witness an emergency and the length of time for help to be given, the points on the scatterplot fall roughly along a line that slants down and to the right. Based on her scatterplot, Hyacinth can conclude that the number of witnesses and the time to offer help:

A. are positively correlated
B. are negatively correlated
C. are only weakly correlated
D. have a cause-and-effect relationship

142. Significant correlations permit researchers to:

A. determine cause-effect relationships
B. use one behavior to predict another
C. identify third variable relationships
D. assume that the relationship has good external validity

143. If a researcher found that room temperature and aggression had a strong negative correlation, it would indicate that:

A. low room temperatures tend to be associated with low levels of aggression
B. there is no relationship between room temperature and level of aggression
C. high room temperatures tend to be associated with low levels of aggression
D. increases in room temperature caused an increase in aggression

144. If a researcher found that family income and divorce rates had a strong positive correlation, it would indicate that:

A. low family income tends to be associated with high divorce rates
B. there is no relationship between family income and divorce rates
C. decreases in family income cause an increase in divorce rates
D. high family income tends to be associated with high divorce rates

145. If researchers discover a strong positive correlation between snoring and obesity, it would indicate that:

A. overweight individuals tend to snore more than underweight individuals
B. overweight individuals tend to snore less than underweight individuals
C. there is no relationship between weight and snoring
D. individuals who lose weight will increase the amount that they snore

146. If researchers discover a strong negative correlation between activity level and cholesterol level, it would indicate that:

A. people with low cholesterol levels tend to be less active than people with high cholesterol levels
B. there is no relationship between cholesterol level and activity level
C. individuals who lower their cholesterol level will become more sluggish
D. people with low cholesterol levels tend to be more active than people with high cholesterol levels

147. Identifying that a strong correlation exists between two variables allows a researcher to:

A. determine which of the variables is the independent variable
B. accurately predict the value of one variable from known values of the second variable
C. conclude that a positive, direct relationship exists between the two variables
D. calculate the strength of the cause-and-effect relationship between the two variables

148. In an experiment, the researcher:

A. changes some aspect of the environment and observes the effect of that change
B. makes observations of naturally occurring behavior and does not interfere in any way
C. takes measurements of two variables for every person in the group being observed
D. examines one person in great detail

149. Experimental research involves:

A. assessing the relationship between two variables to determine if they vary together in a systematic way
B. research focused on a single case in an effort to accumulate in-depth information about an issue
C. recording and describing naturally occurring behavior without any interference
D. active manipulation of some aspect of the environment in order to observe the effect on behavior

150. Active manipulation of some aspect of the environment, in order to observe the effect on behavior, is known as:

A. experimental research
B. correlational research
C. case study research
D. participant observation

151. The primary advantage of experimental research over correlational research is that experiments:

A. are easier to conduct than correlational studies
B. use descriptive statistics rather than inferential statistics
C. can determine cause-effect relationships
D. involve more natural behavior than correlational studies

152. Researchers wanted to determine if memory is affected by the way in which material is encoded. One group of research participants formed mental images of the objects to be remembered, while another group repeated the names of the objects to be remembered. The design of this study is consistent with:

A. correlational research
B. an experimental research procedure
C. case study research
D. naturalistic observation

153. Researchers wanted to determine if memory was affected by the context in which the material is recalled. One group of research participants memorized material and recalled material in the same setting; another group memorized material in one setting and recalled it in a different setting. The design of this study is consistent with:

A. correlational research
B. case study research
C. naturalistic observation
D. an experimental research procedure

154. Dr. Murawski wants to determine if musical appreciation is affected by listening conditions. One group of research participants listens to music in a darkened room while another group listens in a brightly lit room. The design of this study is consistent with:

A. an experimental research procedure
B. correlational research
C. case study research
D. naturalistic observation

155. Dr. Kresge wants to determine if accuracy in a task increases when it produces favorable outcomes. One group of research participants receives a small amount of money each time they make a correct response; another group receives nothing for making a correct response. The design of this study is consistent with:

A. correlational research
B. case study research
C. an experimental research procedure
D. naturalistic observation

156. The independent variable in an experiment is:

A. the behavior that is observed or measured
B. different for each participant in an experiment
C. the aspect of the environment that is manipulated or changed by the researcher
D. an external, uncontrolled factor that changes during the course of the experiment

157. The independent variable in an experiment is:

A. the behavior that is observed or measured
B. different for each participant in an experiment
C. an external, uncontrolled factor that changes during the course of the experiment
D. none of these choices

158. The aspect of the environment that is manipulated or changed by the researcher during the course of an experiment is:

A. the independent variable
B. the dependent variable
C. a confounding variable
D. a placebo

159. Researchers studying human memory presented people with two lists of words. One list included the names of objects; the other list contained abstract nouns. The researchers found that people could remember more words from the list with object names. In this study, the type of word in the word list (object name or abstract noun) would be:

A. a placebo
B. a confounding variable
C. the dependent variable
D. the independent variable

160. A group of researchers wanted to determine whether animals would be slower in learning a maze when they had been exposed to a particular drug. Half the animals received low doses of the drug, and the other half did not receive the drug. The researchers then counted how many times the animals had to run through the maze before they learned it. In this study, the independent variable is:

A. the amount of drug each animal is given (low dose or none)
B. the type of animal the researcher selects for the study
C. the number of trials it takes for each animal to learn the maze
D. the age of the animals selected

161. A group of researchers wanted to determine whether people would eat more food in a cool room than in a hot room. Half the participants ate in a warm room (75°F) and half the participants ate in a cool room (65°F). The researchers then measured how much food was consumed in each of the two rooms. In this study, the independent variable is:

A. the temperature of the room (75°F or 65°F)
B. the type of food the researcher selects for the study
C. the amount of food that is consumed
D. how hungry the participants are at the start of the study

162. Researchers studying plant growth raised plants in two different rooms. One room had soft music playing 24 hours a day; the other room was silent. The researchers found that the plants grew better in the room where the music was played. In this study, the type of room (soft music or silent) would be:

A. the independent variable
B. a placebo
C. the dependent variable
D. a confounding variable

163. Dr. Wilson sets up an experimental study to investigate how self-esteem is affected by feedback from teachers. During the study, third-grade teachers administer a short quiz where each child earns the same score (5 out of a possible 10 points). Half the children are told that this is a very good score, while the rest are told that it is an average score. In this study, the independent variable is:

A. the child's score on the quiz
B. the child's level of self-esteem after the quiz has been returned
C. the type of feedback the child receives (very good or average)
D. the age of the children who take part in the study

164. Researchers studying the effects of alcohol consumption tested the physical coordination skills of 21-year-old men who were first assigned to drink a beverage with 4, 2, or 0 ounces of alcohol in the laboratory. In this study, the independent variable would be:

A. the amount of alcohol consumed
B. the age of the research participants
C. the physical coordination skills of the research participants
D. the effects of alcohol consumption

165. Researchers studying the effects of caffeine tested the reaction times of women who first drank either a beverage with caffeine or a decaffeinated version of the same beverage. In this study, the type of beverage that each participant drinks would be:

A. a placebo
B. the dependent variable
C. the independent variable
D. a confounding variable

166. A group of researchers wanted to determine whether people were more likely to follow directions if the person giving the directions was in uniform. An individual wearing a security guard's uniform gave half the participants parking instructions, and half the participants were given parking instructions by an individual wearing street clothes. The researchers recorded whether the participants parked in the spot they were directed to. In this study, the independent variable is:

A. the parking spot the participant is directed to
B. the type of clothing worn by the person giving directions (uniform or street clothes)
C. the number of participants who follow the directions
D. the gender of the individual providing the directions

167. A group of researchers wanted to determine whether people would help someone in distress more quickly if they were alone. Half the participants were waiting alone in a room when they heard a cry for help, and half the participants were waiting with four other people when they heard a cry for help. The researchers then measured how long it took for help to be offered. In this study, the independent variable is:

A. how loud the cry for help is
B. the number of other people in the room (0 or 4)
C. how long it takes for help to be offered
D. the age of the participants in the study

168. Peter believes listening to relaxing music will improve memory. He designs a study in which 15 people listen to relaxing music while studying for 30 minutes and 15 people study in a quiet room for 30 minutes. He measures how much they remember from the material they studied. In this example, the independent variable is:

A. the amount that the participants remember from the material they study
B. what the participants hear while they study (relaxing music or no music)
C. the number of people who take part in the experiment
D. the length of time the participants were allowed to study the material

169. To discover whether highlighting terms in texts helps students learn, researchers had one group of students read a biology chapter with highlighted terms and had another group read the same chapter with the terms in normal type. Both groups then took the same 10-item test, and their scores were recorded. The independent variable in this experiment was:

A. the format of the chapter (highlighted terms or no highlighting)
B. the students' test performance (the test score)
C. the content of the chapter (the factual material)
D. the personal backgrounds of the students who participated (intelligence, age)

170. The dependent variable in an experiment is:

A. the aspect of the environment that is manipulated or changed by the researcher
B. is held constant during the course of an experiment
C. the behavior that is observed or measured
D. an external, uncontrolled factor that changes during the course of the experiment

171. The dependent variable in an experiment is:

A. the aspect of the environment that is manipulated or changed by the researcher
B. is held constant during the course of an experiment
C. an external, uncontrolled factor that changes during the course of the experiment
D. none of these choices

172. The behavior that is observed or measured during an experiment is:

A. the dependent variable
B. the independent variable
C. a confounding variable
D. a placebo

173. Researchers studying human memory presented people with two lists of words. One list included the names of objects; the other list contained abstract nouns. The researchers found that people could remember more words from the list with object names. In this study, the number of words recalled by each participant would be:

A. a placebo
B. the dependent variable
C. a confounding variable
D. the independent variable

174. Researchers studying the effects of alcohol consumption tested the physical coordination skills of 21-year-old men who were first assigned to drink a beverage with 4, 2, or 0 ounces of alcohol in the laboratory. In this study, the dependent variable would be:

A. the age of the research participants
B. the amount of alcohol consumed
C. the physical coordination skills of the research participants
D. the length of time that elapses between drinking the alcohol and taking the test

175. Researchers studying the effects of caffeine tested the reaction times of women who first drank either a beverage with caffeine or a decaffeinated version of the same beverage. In this study, the reaction time of each participant would be:

A. a placebo
B. a confounding variable
C. the independent variable
D. the dependent variable

176. A group of researchers wanted to determine whether animals would be slower in learning a maze when they had been exposed to a particular drug. Half the animals received low doses of the drug, and the other half did not receive the drug. The researchers then counted how many times the animals had to run through the maze before they learned it. In this study, the dependent variable is:

A. the number of trials it takes for each animal to learn the maze
B. the type of animal the researcher selects for the study
C. the amount of drug each animal is given (low dose or none)
D. the age of the animals selected

177. A group of researchers wanted to determine whether people would eat more food in a cool room than in a hot room. Half the participants ate in a warm room (75°F) and half the participants ate in a cool room (65°F). The researchers then measured how much food was consumed in each of the two rooms. In this study, the dependent variable is:

A. the temperature of the room (75°F or 65°F)
B. the type of food the researcher selects for the study
C. the amount of food that is consumed
D. how hungry the participants are at the start of the study

178. Dr. Wilson sets up an experimental study to investigate how self-esteem is affected by feedback from teachers. During the study, third-grade teachers administer a short quiz where each child earns the same score (5 out of a possible 10 points). Half the children are told that this is a very good score, while the rest are told that it is an average score. In this study, the dependent variable is:

A. the type of feedback the child receives (very good or average)
B. the child's score on the quiz
C. the age of the children who take part in the study
D. the child's level of self-esteem after the quiz has been returned

179. A group of researchers wanted to determine whether people were more likely to follow directions if the person giving the directions was in uniform. An individual wearing a security guard's uniform gave half the participants parking instructions, and half the participants were given parking instructions by an individual wearing street clothes. The researchers recorded whether the participants parked in the spot they were directed to. In this study, the dependent variable is:

A. the type of clothing worn by the person giving directions (uniform or street clothes)
B. the parking spot the participant is directed to
C. the number of participants who follow the directions
D. the gender of the individual providing the directions

180. Researchers studying plant growth raised plants in two different rooms. One room had soft music playing 24 hours a day; the other room was silent. The researchers found that the plants grew better in the room where the music was played. In this study, the amount that the plants grew would be:

A. the dependent variable
B. a placebo
C. a confounding variable
D. the independent variable

181. A group of researchers wanted to determine whether people would help someone in distress more quickly if they were alone. Half the participants were waiting alone in a room when they heard a cry for help, and half the participants were waiting with four other people when they heard a cry for help. The researchers then measured how long it took for help to be offered. In this study, the dependent variable is:

A. the number of other people in the room (0 or 4)
B. how long it takes for help to be offered
C. how loud the cry for help is
D. the age of the participants in the study

182. In an experimental study, the group of participants exposed to the experimental treatment or the changed conditions is:

A. the control group
B. the random group
C. the dependent variable group
D. the experimental group

183. In an experimental study, the experimental group consists of the participants:

A. who are not exposed to the experimental treatment
B. who are exposed to the experimental treatment or the changed conditions
C. who are not exposed to the dependent variable
D. who score the highest in the study

184. A group of researchers wanted to determine whether animals would be slower in learning a maze when they had been exposed to a particular drug. Half the animals received low doses of the drug, and the other half did not receive the drug. In this study, the experimental group is:

A. the animals who did not receive the drug
B. the animals who ran the maze the fastest
C. the animals who received the low doses of the drug
D. all the animals who took part in the study

185. In an experiment designed to investigate memory processes, one group of participants was given special instructions and asked to create mental pictures of each item on a list of items to be remembered. Another group of participants was given the same list but received no special instructions about how to remember the items. In this study, the experimental group is:

A. the participants who received the special instructions
B. the participants who received no special instructions
C. the participants who remembered the fewest items
D. all the participants in the study

186. Researchers studying the effects of caffeine on reaction times had participants drink either a beverage that contained caffeine or a decaffeinated version of the same beverage. In this study, the experimental group is:

A. the participants who drink the decaffeinated beverage
B. the participants with the slowest reaction times
C. all the people who take part in the study
D. the participants who drink the beverage with caffeine

187. Roland and Tabitha both take part in a research study that is investigating the effects of sleep deprivation on reaction time. Roland is kept awake for 24 hours straight, while Tabitha follows her normal sleep routine. In this study, Roland is part of:

A. the control group
B. the hypothesis group
C. the experimental group
D. the dependent variable group

188. In an experimental study, the group of participants who are not exposed to the experimental treatment is:

A. the experimental group
B. the random group
C. the dependent variable group
D. the control group

189. The control group in an experiment is the group that:

A. is not exposed to the dependent variable in the study
B. receives the lowest score on the dependent variable
C. receives some special treatment in regard to the independent variable
D. does not receive any special treatment in regard to the independent variable

190. A group of researchers wanted to determine whether children behave more aggressively after watching violent television programming. Half the children in the study watch a violent television show; the other children watch a nonviolent television program. In this study, the control group is:

A. the children who watch the violent show
B. the children who watch the nonviolent program
C. the children who behave the most aggressively at the end of the study
D. all the children who take part in the study

191. Researchers who were studying the effects of music on plant growth raised plants in two different rooms. One room had soft music playing 24 hours a day; the other room had no music. In this study, the control group is:

A. the plants in the room with no music
B. the plants in the room with the music
C. the plants that grow the most during the study
D. all the plants used during the study

192. Researchers studying the effects of alcohol consumption tested the physical coordination skills of 21-year-old men who were first assigned to drink a beverage with either 2 ounces of alcohol or no alcohol. In this study, the control group is:

A. the men who drink the nonalcoholic beverage
B. the men who drink the alcoholic beverage
C. the men who have the slowest reaction times
D. all the men who take part in the study

193. Dr. Krenshaw believes that people who are under stress will develop more colds than people who are not under stress. When he randomly selects 20 participants and exposes them to high levels of stress, he finds that 17 of the participants develop colds. Based on these results, Dr. Krenshaw concludes that stress causes an increase in the number of colds a person experiences. His reasoning may be flawed because in this study:

A. there was no dependent variable
B. there was no control group for comparison
C. he didn't formulate a hypothesis before he collected his data
D. he didn't measure the independent variable when the study ended

194. Kyle believes that patrons in his bar will be more likely to leave a tip if the tip jar already has some money in it, compared to when the tip jar is completely empty. To test this belief, he has the tip jar empty about half the time when a customer approaches the bar; the rest of the time he ensures there is at least $5.00 in the jar when a customer approaches. In Kyle's experiment, the patrons who see the empty tip jar are part of:

A. the control group
B. the hypothesis group
C. the experimental group
D. the dependent variable group

195. A confounding variable is:

A. the dependent variable in an experimental study
B. a factor that is held constant during an experimental study
C. a variable that is defined in terms of how it will be measured
D. an uncontrolled variable that changes systematically with the independent variable

196. Any uncontrolled variable that changes systematically with the independent variable is:

A. a dependent variable
B. a correlation coefficient
C. a theoretical construct
D. a confounding variable

197. A confounding variable in an experiment is an uncontrolled variable that:

A. increases the internal validity of the experiment
B. reduces the problem of expectancy effects
C. is produced by random assignment
D. varies systematically with the independent variable

198. Chantelle conducts a memory experiment to determine if people find it easier to remember concrete objects (such as cars and dogs) or abstract concepts (such as truth and justice). Chantelle gives the list of concrete objects to all the male participants, and all the female participants receive the list of abstract concepts. In this experiment, Chantelle needs to be concerned about internal validity because:

A. there are two control groups and no experimental group
B. the gender of the participants is a confounding variable
C. the type of words on the list to be memorized is a confounding variable
D. there is no dependent variable in the experiment

199. Harrison conducts a decision-making experiment to determine if people reason more logically when they have more time to decide. Harrison allows all the participants who are under 40 years of age 15 minutes to reach a decision about a problem; all the participants who are over 40 years of age are allowed 20 minutes to reach a decision about the same problem. In this study, Harrison needs to be concerned about internal validity because:

A. there are two control groups and no experimental group
B. the length of time allowed for the decision is a confounding variable
C. there is no dependent variable in the experiment
D. the age of the participants is a confounding variable

200. Donald received a poor grade on his last exam. In an attempt to improve his performance on the next exam, he has started to use a different note-taking method, he has enrolled in a study skills class, and he has moved to a seat that is closer to the front of the class. If Donald's score goes up on the next exam, it will be hard for him to figure out why because:

A. he failed to use a double-blind procedure
B. the three actions he took to raise his grade are confounded with each other
C. none of the actions he took is generally related to grades in school
D. he doesn't have a research hypothesis

201. Fred's advisor noticed that he had not included the same words in each list used to test whether the color of ink affects memory. This meant the lists differed in both content and ink color. Fred won't be able to easily interpret his results because:

A. reactivity has occurred
B. his data have poor external validity
C. his experiment included a confounding variable
D. he did not use a control group

202. The internal validity of an experiment can be increased:

A. by holding the value of the dependent variable constant throughout the study
B. by effectively controlling any potential confounding variables
C. if the value of the independent variable is the same for both the experimental and the control groups
D. if there is no control group in the study

203. In Dr. Parker's recent experiment, he was able to determine that a new drug caused a lowering of cholesterol levels. His experiment was free of confounds; thus, it has:

A. operational definition
B. internal validity
C. external validity
D. central tendency

204. The internal validity of an experiment can be increased:

A. by randomly assigning participants to each of the conditions in the experiment
B. by ensuring there are at least two confounding variables
C. by using the case study method of research
D. by keeping the value of the independent variable the same for both the experimental and control groups

205. Research participants are randomly assigned to different conditions in an experiment in order to:

A. increase the likelihood that differences among the participants will be equally represented in each group
B. reduce the likelihood that participants will know each other
C. reduce the likelihood that research participants will be biased in their responses
D. increase the likelihood that the different experimental conditions have the same number of participants

206. Random assignment to either the control or experimental group is an important aspect of experimental procedures. Random assignment is used to ensure that:

A. a representative sample of participants is initially selected
B. expectancy effects are minimized within the experiment
C. the independent variable will be reliable and valid
D. the experimental group and the control group are as similar as possible

207. If random assignment is used, researchers assume that differences in group performance are not due to:

A. experimenter expectancies about the experiment
B. differences in the personal characteristics of subjects in each group
C. subject expectancies about the experiment
D. the environmental conditions that are intentionally manipulated in the experiment

208. Jeff plans to conduct a small experiment with some of his friends. He writes the ten names on slips of paper and mixes them up in a bowl. He then draws the names one at a time. The first five names are assigned to the experimental group, and the last five names are assigned to the control group. In this example, Jeff's procedure illustrates:

A. a single-blind research design
B. the use of random assignment
C. correlational research
D. informed consent

209. Scarlett plans to conduct a small experiment with some of her friends. She asks them each to decide to which condition of the experiment they would like to be assigned. In this example, Scarlett's procedure illustrates:

A. a double-blind research design
B. the use of nonrandom assignment
C. correlational research
D. informed consent

210. A placebo is:

A. an active drug that is given to the experimental group in a research study
B. only used in correlational research studies
C. an inactive or inert substance that appears to be a real drug
D. is not necessary if a single-blind research procedure is used

211. An inactive or inert substance that appears to be a real drug is called:

A. a confounding variable
B. a placebo
C. a random variable
D. a theoretical construct

212. A participant who receives a placebo is likely to be in which of the following:

A. an experimental group
B. a survey research study
C. a naturalistic observation study
D. a control group

213. If a placebo is used, researchers assume that differences in group performance are not due to:

A. experimenter expectancies about the experiment
B. differences in the personal characteristics of subjects in each group
C. subject expectancies about the experiment
D. the environmental conditions that are intentionally manipulated in the experiment

214. A researcher was investigating the link between memory and caffeine. Half the participants were given a caffeinated beverage before being asked to memorize a word list; the other participants were given a decaffeinated beverage before being asked to memorize the same word list. In this research study, the decaffeinated beverage would be:

A. a placebo
B. a confounding variable
C. the dependent variable
D. an inferential variable

215. In a single-blind study:

A. each participant is part of both the experimental and control group
B. all confounding variables are eliminated from the study
C. both the experimental and control groups receive placebos
D. research participants are uncertain whether they are in the experimental or control group

216. When research participants are uncertain whether they are in the experimental or control group, but the researchers are aware which group each participant is in, the research study utilizes:

A. a double-blind design
B. a single-blind design
C. confounded variables
D. a triple-blind design

217. The main advantage of a single-blind research study is that it minimizes the effect of:

A. expectations by both the experimenter and the participants
B. expectations in the participants
C. the independent variable
D. any confounding variables

218. Pamela signed up for a study that would test the effects of a new experimental drug. She knew that only half the participants would actually receive the drug, while the rest would receive a placebo. However, Pamela is unsure whether the drug she is receiving is real. Pamela is taking part in:

A. a single-blind research study
B. an unethical experiment
C. a case study
D. a study with no external validity

219. Jameson signed up for a study that was investigating whether memory could be enhanced using a hormone supplement. He knows that half the participants are receiving a placebo, while the rest are receiving the actual hormone. However, Jameson doesn't know if he is in the experimental group or the control group. Jameson is taking part in:

A. a poorly designed study
B. a single-blind research study
C. an unethical experiment
D. a participant observation study

220. Experimenter expectancy effects occur when the researcher:

A. knows the experimental hypothesis that is being tested
B. uses a double-blind experimental design
C. fails to use random assignment in an experiment
D. unknowingly influences the results of a study in subtle ways

221. One method that can control for experimenter expectancy effects is to use:

A. a single-blind procedure
B. two control groups
C. random assignment
D. a double-blind procedure

222. In a double-blind study:

A. each participant is part of both the experimental and control group
B. the researchers administering the treatment do not know which participants are in the experimental group
C. all confounding variables are eliminated from the study
D. both the experimental and control groups receive placebos

223. Neither the subjects nor the experimenter recording the data knows which subjects belong to a particular group. This is an example of:

A. a confounding variable
B. random assignment
C. a double-blind experiment
D. a single-blind experiment

224. Studies involving which of the following are NOT likely to result in participants' having expectancies about the outcome of the research:

A. a confounding variable
B. random assignment
C. a double-blind procedure
D. an operational definition

225. Meredith is a doctor whose patients are participants in a research study testing a new cholesterol medication. Neither Meredith nor her patients knows whether the patients are receiving the new experimental drug or a placebo. This is an example of:

A. a confounding variable
B. random assignment
C. a double-blind experiment
D. a single-blind experiment

226. The main advantage of a double-blind research study is that it minimizes the effect of:

A. the dependent variable
B. the independent variable
C. expectations by both the experimenter and the participants
D. any confounding variables

227. When the researchers who make the direct observations and administer the treatment during an experiment are uncertain which participants are receiving the experimental treatment, and which are receiving a placebo, the research study utilizes:

A. a single-blind design
B. a double-blind design
C. confounded variables
D. a triple-blind design

228. Dr. Marcus designs an experiment to test the effects of a new drug on learning. The drug is injected into one group of rats, while another group of rats receives a saline injection. Dr. Marcus designs the study so that the researchers administering the drug and recording the data are not certain which rats are receiving the treatment and which are receiving the placebo. Dr. Marcus has designed:

A. an unethical experiment
B. a single-blind research study
C. a double-blind research study
D. a study that will maximize participant expectancy effects

229. Dr. Brown designs an experiment to test the effects of a new memory drug. Half the participants will receive a placebo and half will receive the actual drug, but neither the participants nor the researchers administering the drug will be informed which is the placebo. Dr. Brown has designed:

A. an unethical experiment
B. a double-blind research study
C. a single-blind research study
D. a study that will maximize participant expectancy effects

230. Researchers use the term external validity to refer to:

A. effective control of potential confounding variables
B. how well research results generalize across subjects and situations
C. research results that are statistically significant
D. results obtained from research conducted in naturalistic settings

231. When research results generalize across subjects and situations, those results are considered to be:

A. internally valid
B. positively correlated
C. externally valid
D. statistically significant

232. The use of deception in research is controversial because it conflicts with the ethical requirement of:

A. debriefing
B. confidentiality
C. compensation
D. informed consent

233. Telling potential research participants the nature and possible risks of the research prior to their participation is part of the ethical requirement of:

A. informed consent
B. debriefing
C. confidentiality
D. compensation

234. The ethical practice that involves explaining, in easy-to-understand language, any significant factors that might influence a participant's willingness to participate in a research study is known as:

A. informed consent
B. debriefing
C. confidentiality
D. experimental control

235. Informed consent involves:

A. explaining any significant factors that might influence a participant's willingness to participate in a study
B. fully disclosing and explaining all aspects of a study, once the study is over
C. protecting the right to privacy of all the participants in a research study
D. asking participants to sign a waiver form at the beginning of a study

236. Dr. Kinder is investigating the link between social support networks and grades in school. Students in his classes are required to complete survey forms related to this research. If a survey form is not completed by the end of the semester, a student's grade is reduced by 10 points. In this case, some researchers might argue that Dr. Kinder's research violates the ethical principle of:

A. Informed consent
B. Debriefing and Confidentiality
C. Protection from potential harm
D. Unjustified use of deception

237. According to the guidelines established by the American Psychological Association (APA), researchers can:

A. never use deception in a research study
B. only use deception if the deception is fully disclosed during the debriefing
C. only use deception if the participants are paid for taking part in the study
D. only use deception in descriptive research

238. The ethical practice in which the purpose of a study is fully disclosed to the study's participants, once the study is over, is known as:

A. informed consent
B. debriefing
C. confidentiality
D. experimental control

239. Debriefing involves:

A. explaining any significant factors that might influence a participant's willingness to participate in a study
B. protecting the right to privacy of all the participants in a research study
C. asking participants to sign a waiver form at the beginning of a study
D. fully disclosing and explaining all aspects of a research study, once the study is over

240. Debriefing involves:

A. explaining any significant factors that might influence a participant's willingness to participate in a study
B. protecting the right to privacy of all the participants in a research study
C. asking participants to sign a waiver form at the beginning of a study
D. none of these choices

241. A research study involving which of the following is likely to involve a debriefing session.

A. dependent variable
B. operational definition
C. deception
D. internal validity

242. When the experiment ended, Raj told subjects the purpose of the experiment, what he hoped to learn, and who to contact for further information about the results. This was part of the ethical requirement of:

A. humane treatment
B. informed consent
C. confidentiality
D. debriefing

243. Angelica took part in a research study where she had to sit alone in a darkened room for 30 minutes before completing a brief questionnaire about her future goals and plans. When she had completed the questionnaire, she was told the experiment was over. Angelica never really understood the purpose of the study, and she wasn't sure why she had to wait in the darkened room before filling out the short questionnaire. In this case, it would appear that the researchers who conducted the experiment:

A. violated Angelica's right to confidentiality
B. failed to obtain informed consent
C. did not use an adequate debriefing procedure
D. did not provide adequate protection from potential harm

244. Keeping personal information about research participants private is part of the ethical requirement of:

A. debriefing
B. informed consent
C. compensation
D. confidentiality

245. Keeping personal information about research participants private is part of the ethical requirement of:

A. debriefing
B. informed consent
C. compensation
D. none of these choices

246. The ethical practice in which the right to privacy of all research participants is maintained is known as:

A. informed consent
B. debriefing
C. confidentiality
D. experimental control

247. Confidentiality involves:

A. explaining any significant factors that might influence a participant's willingness to participate in a study
B. fully disclosing and explaining all aspects of a study, once the study is over
C. protecting the right to privacy of all the participants in a research study
D. asking participants to sign a waiver form at the beginning of a study

248. Ezekial Zarnak III took part in a study on depression last year. He was somewhat distressed to read a recent article on depression in Newsweek where one of the patients was EZ3. Although the article claimed the names were disguised to protect personal identities, Ezekial is certain he is one of the people described in the article. In this case, it would appear that the researchers violated the ethical principle of:

A. confidentiality
B. informed consent
C. debriefing
D. full disclosure

249. One of the main reasons for using animals as subjects in a research study is that:

A. researchers are not bound by ethical restrictions in designing their studies
B. experimenters have better experimental control
C. animal research is much less expensive than comparable human research
D. it is not necessary to use a control group for comparison

250. The percentage of current psychological research studies in which animals are used is about:

A. 90%
B. 50%
C. 25%
D. less than 10%

Chapter 2 (Multiple Choice)--The Tools of Psychological Research Key

1. The scientific method always:

   A. begins with observation and ends with generation of a hypothesis
   B. begins with generation of a hypothesis and ends with systematic observation
   C. begins and ends with observation
   D. begins with the detection of regularities and ends with generation of a hypothesis

2. The scientific method involves:

   A. observation
   B. generation of a hypothesis
   C. testing of a hypothesis for accuracy
   D. all of these choices

3. Which of the following is NOT involved in the scientific method?

   A. observation
   B. generation of a hypothesis
   C. testing a hypothesis for accuracy
   D. clairvoyance

4. A researcher who observes a behavior, detects regularities in the behavior, generates a hypothesis about the behavior, and checks the accuracy of his or her predictions through additional observation is utilizing:

   A. the scientific method
   B. naturalistic observation
   C. statistical reasoning
   D. good experimental control

5. A hypothesis:

   A. is a conclusion based on the results of a research study
   B. is not necessary if the scientific method is being used
   C. normally wouldn't be generated until a study has been completed
   D. is a prediction about the characteristics of a behavior under investigation

6. A prediction about the characteristics of a behavior under investigation is called:

   A. an inferential statistic
   B. an operational definition
   C. a hypothesis
   D. a dependent variable

7. Dr. Bores predicts that if the temperature of a room is increased, then individuals are more likely to act aggressively. Dr. Bores's prediction is an example of:

A. a hypothesis
B. an independent variable
C. an operational definition
D. a dependent variable

8. Dr. Sanchez predicts that if the noise level in a room is increased, then individuals are more likely to make errors on a complex task. Dr. Sanchez's prediction is an example of:

A. an independent variable
B. an operational definition
C. a hypothesis
D. a dependent variable

9. Dr. Cakmak predicts that if the level of lighting on an assembly line is reduced, then worker productivity will increase. Dr. Cakmak's prediction is an example of:

A. an independent variable
B. a hypothesis
C. an operational definition
D. a dependent variable

10. Operational definitions:

A. ensure the results of a scientific investigation will be externally valid
B. define concepts in terms of how they will be measured
C. are only necessary in experimental studies
D. define concepts in abstract terms

11. When concepts are defined in terms of the way in which they will be measured, those concepts are said to be:

A. hypothetical variables
B. externally valid
C. internally valid
D. operationally defined

12. Defining intelligence in terms of performance on a psychological test would:

A. represent an operational definition of intelligence
B. be a testable hypothesis about intelligence
C. provide empirical verification of intelligence
D. violate general research ethics

13. A good operational definition of aggression might be:

A. behavior intended to harm someone or something
B. a violent response most often accompanying frustration or anger directed toward someone
C. the number of times someone hits, kicks, or yells at a person or an object within a 1-hour period
D. a personality characteristic in which the individual tends to solve problems with violence

14. A good operational definition of memory might be:

A. number of words recalled from a list containing 20 words
B. number of comprehension questions answered correctly following the processing of a short narrative
C. number of words named correctly when cued with their written definitions
D. All of these choices

15. A good operational definition of wealth might be:

A. Annual salary
B. Total value of assets
C. Total value of assets minus total value of debts
D. All of these choices

16. Which of the following is NOT a good operational definition of intelligence?

A. Score on IQ test
B. Score on a general knowledge test
C. Performance in theatrical performance
D. None of these choices - all are good operational definitions of intelligence

17. Dr. Boser is studying family relations and plans to define family cohesiveness in terms of the number of weekly activities families do together. Defining family cohesiveness in this way would:

A. be a testable hypothesis
B. provide empirical verification of the concept
C. violate general research ethics
D. represent an operational definition

18. Dr. Pointel is studying aggression and plans to define aggression in terms of the number of times an individual actually strikes another person. Defining aggression in this way would:

A. be a testable hypothesis
B. provide empirical verification of the concept
C. violate general research ethics
D. represent an operational definition

19. Dr. Barant is studying reaction times and plans to define reaction time in terms of the time it takes to press a button on a display panel. Defining reaction time in this way would:

A. be a testable hypothesis
B. provide empirical verification of the concept
C. represent an operational definition
D. violate general research ethics

20. Dr. Beaudette is studying parent-infant attachment and plans to define attachment in terms of the time it takes for a parent to respond to an infant's cries. Defining attachment in this way would:

A. be a testable hypothesis
B. provide empirical verification of the concept
C. represent an operational definition
D. violate general research ethics

21. Dr. Meir is conducting a study and uses heart rate as a measure of general anxiety level. Defining anxiety level in this way would:

A. represent an operational definition
B. be a testable hypothesis
C. provide empirical verification of the concept
D. violate general research ethics

22. Descriptive research refers to:

A. methods used to assess whether two variables vary together in a systematic way
B. methods involving active manipulation of some aspect of the environment
C. any research that uses invasive methods for observing the target behavior
D. the methods that underlie the direct observation and description of behavior

23. People's behavior sometimes changes simply because they are being observed. This effect is known as:

A. external validity
B. standard deviation
C. experimental control
D. reactivity

24. Frank was a participant in a research study. He felt that his behavior during the study was different from his usual behavior simply because he was being observed. Frank was exhibiting which of the following:

A. Placebo effect
B. Experimental control
C. Naturalistic observation
D. Reactivity

25. Reactivity occurs when:

A. researchers react to the results of a study before the study is completed
B. there is a strong public response to a published research study
C. an individual's behavior is changed by the process of being observed
D. researchers attempt to manipulate or change the behavior of research participants

26. The students in Dr. Kent's class are normally very active and there is a high level of classroom participation. However, recently there was an observer in the classroom and the participation level was very low. The change in the responsiveness of the students in Dr. Kent's class illustrates the concept of:

A. experimental control
B. negative correlation
C. reactivity
D. systematic observation

27. Production at the factory was poor, so management had a team of observers film the workers on the job. The films showed everyone working at top speed, and production was the highest in a year. A likely explanation for the change in the workers' behavior is:

A. external validity
B. the placebo effect
C. reactivity
D. random assignment

28. Wilma can normally type very quickly, but she finds that when her boss watches her type she types much more slowly. Wilma's change in typing speed illustrates the concept of:

A. experimental control
B. negative correlation
C. reactivity
D. systematic observation

29. External validity refers to:

A. measuring the results of a behavior, rather than the behavior itself
B. any research result obtained using noninvasive observation procedures
C. effectively controlling any potentially confounding variables in an experiment
D. how well the results of an observation will generalize to other situations

30. When the results of a scientific observation are representative of real life, the results:

A. have internal validity
B. have scientific regularity
C. have been operationally defined
D. have external validity

31. Professor Langerman conducted a study which showed that participants were less efficient when they worked in groups, compared to when they worked alone. Professor Langerman has also noticed that compared to individual projects, students are more likely to hand group projects in late. This suggests that the results Professor Langerman obtained in the efficiency study:

A. are internally valid
B. are operationally defined
C. will not generalize to everyday settings
D. have external validity

32. Professor Haskins conducted a study which showed that participants remembered new material better when they learned the material and were tested on the material in the same setting. Professor Haskins has also noticed that students tend to do better on term exams when they take the exams in the same room as the one in which the class normally met. This suggests that the results Professor Haskins obtained in the memory study:

A. are internally valid
B. are operationally defined
C. will not generalize to everyday settings
D. have external validity

33. Naturalistic observation involves:

A. asking a representative sample of individuals to provide their opinions
B. recording naturally occurring behavior without any interference
C. carefully observing a single individual in detail
D. observing the behavior of animals in a laboratory setting

34. When a researcher records naturally occurring behavior, without any interference, the researcher is engaged in:

A. correlational research
B. experimentation
C. naturalistic observation
D. case study research

35. One reason researchers use naturalistic observation is to:

A. increase reactivity in their results
B. improve the external validity of their findings
C. establish cause and effect
D. increase the standard deviation of their observations

36. A researcher who stands on a street corner, recording the gender of the driver of each vehicle, and whether or not the driver comes to a complete stop at the stop sign, is engaged in:

A. psychological testing
B. naturalistic observation
C. experimentation
D. case study research

37. A researcher who waits by a store exit, recording the general age of each customer, and whether the customer uses the automatic or manual door, is engaged in:

A. naturalistic observation
B. psychological testing
C. experimentation
D. case study research

38. A researcher who goes to a playground and records the amount of time the children spend playing at each activity is engaged in:

A. correlational research
B. naturalistic observation
C. experimentation
D. case study research

39. Participant observation occurs when:

A. a representative sample of individuals is asked for their opinion
B. participants in a research study observe and record the behavior of the researcher
C. an observer attempts to become part of the activities being studied
D. a single individual is studied in-depth

40. When a researcher attempts to become part of the activities being studied, in order to unobtrusively observe the behavior under investigation, the researcher is engaging in:

A. participant observation
B. case study research
C. correlational research
D. survey research

41. Channel 6 News heard reports that security regulations were being ignored at the local airport. They had a reporter get a job at the airport so he could find out how security was maintained. This technique is:

A. a case study
B. introspection
C. participant observation
D. naturalistic observation

42. Tess went to a day care center to study social interactions in young children. She used a hidden camera and she told the children she was a student teacher working there for the day. In this case Tess is using:

A. the case study method of research
B. survey research
C. correlational research
D. participant observation as a method of research

43. Psychologists who pretended to be "doomsday" believers in order to infiltrate a cult group, and study and record the reactions of the group members, were using:

A. participant observation as a method of research
B. the case study method of research
C. survey research
D. correlational research

44. Psychologists who pretended to be mentally ill in order to be admitted to various mental health facilities, and then investigated conditions within those facilities, were using:

A. participant observation as a method of research
B. the case study method of research
C. survey research
D. correlational research

45. A group of researchers wanted to investigate allegations of sexual harassment on a company's assembly line. They wanted their observations to be unobtrusive, so they took jobs working on the assembly line and told their fellow employees they were "new hires." In this case the researchers were using:

A. the case study method of research
B. survey research
C. correlational research
D. participant observation as a method of research

46. Researchers who investigate the social habits of teenagers by measuring the content of the litter they leave behind are engaged in:

A. invasive observation
B. case study research
C. indirect naturalistic observation
D. participant observation

47. Museum administrators who determine the popularity of various exhibits by measuring how quickly the floor tiles in front of each exhibit wear out are engaged in:

A. invasive observation
B. case study research
C. indirect naturalistic observation
D. participant observation

48. City administrators who plan road improvements and monitor traffic patterns by studying how often road repairs are required at various intersections are engaged in:

A. invasive observation
B. indirect naturalistic observation
C. case study research
D. participant observation

49. The case study is a research method in which:

A. the research effort focuses on a single individual
B. a representative sample of individuals is asked for their opinions
C. selected individuals are carefully observed in their natural environments
D. a researcher tries to determine the extent to which two variables influence each other

50. The research method that focuses on a single individual is:

A. naturalistic observation
B. case study research
C. the survey method
D. correlational research

51. Dr. Nelson has been treating a patient for Tourette's syndrome for many years using a variety of therapies. Over the years, he kept detailed records of the patient's behaviors. Dr. Nelson's work is an example of a(n):

A. experiment
B. case study
C. survey
D. all of these choices

52. One of the main concerns with the case study method of research is that:

A. a single case is seldom able to provide a historical perspective
B. the experiences reported may not be representative of other cases
C. hypotheses cannot be generated about the origin of the behavior
D. they cannot be used to study rare or unusual events

53. Sometimes the observations from case studies fail to generalize to other individuals or situations. This represents a problem with:

A. reactivity
B. confounding (third) variables
C. external validity
D. internal validity

54. In order to better understand the links between brain function and behavior, Dr. Vannoni carefully observed and extensively questioned two stroke victims. Based on this information, it is most likely that Dr. Vannoni was conducting:

A. correlational research
B. survey research
C. case study research
D. experimental research

55. In order to better understand the factors that might produce exceptional skills, Dr. Pendergrast carefully observed and extensively questioned three child prodigies. Based on this information, it is most likely that Dr. Pendergrast was conducting:

A. case study research
B. correlational research
C. survey research
D. experimental research

56. Dr. Helmsey was investigating the memory changes associated with electrocution and located three individuals who had survived lightening strikes. These individuals were tested extensively and questioned in detail about their experiences. Dr. Helmsey's research represents the research method known as:

A. correlational research
B. case study research
C. survey research
D. experimental research

57. Dr. Greene was investigating the effects of weightlessness on general psychological functioning. Dr. Greene was able to locate three former astronauts who had experienced at least 10 days of weightlessness in space. These individuals were tested extensively and questioned in detail about their experiences. Dr. Greene's research represents:

A. the correlational method of research
B. case study research
C. survey research
D. the experimental method of research

58. A survey is a research method in which:

A. selected individuals are carefully observed in their natural environments
B. a representative sample of individuals is asked for their opinions
C. a single individual is studied in great detail
D. a researcher tries to determine the extent to which two variables influence each other

59. The research method in which a representative sample of individuals is asked for their opinions is:

A. case study research
B. correlational research
C. a survey
D. naturalistic observation

60. In order to learn whether the people in Hyatt opposed or supported the expansion of the town's elementary school, Mayor Black randomly selected and interviewed 100 of the town's 10,000 residents. In this instance, the 10,000 people who live in Hyatt would be considered to be:

A. a representative sample
B. the dependent variable
C. a population
D. the independent variable

61. In order to learn whether the people in her state opposed or supported increased speed limits, Representative Jackson randomly surveyed 1,000 of the state's residents. In this instance, all the people who live in Representative Jackson's home state would be considered to be:

A. a population
B. a representative sample
C. the dependent variable
D. the independent variable

62. In order to learn whether the people in Newburg opposed or supported the expansion of the town's elementary school, Mayor Tyson randomly selected and interviewed 100 of the town's 10,000 residents. In this instance, the 100 people who were interviewed by the Mayor would be considered to be:

A. a population
B. a representative sample
C. the dependent variable
D. the independent variable

63. In order to learn whether the people in his state opposed or supported increased speed limits, Representative Simpson randomly surveyed 1,000 of the state's residents. In this instance, the 1,000 people whom Representative Simpson surveyed would be considered to be:

A. a population
B. the dependent variable
C. a representative sample
D. the independent variable

64. A researcher who conducts a survey by asking volunteers to phone in with their opinions is likely to have a:

A. representative sample
B. biased sample
C. random sample
D. random population

65. A researcher who conducts a survey by asking volunteers to mail in a form that is printed in the local newspaper is likely to have a:

A. representative sample
B. random sample
C. random population
D. biased sample

66. In a random sample:

A. every tenth person is asked to take part in the study
B. everyone in the target population has an equal likelihood of being selected
C. individuals who take part in a survey are all asked different sets of questions
D. participants with strong opinions are excluded from the survey

67. When everyone in the target population had an equal likelihood of being selected to take part in a survey, the researcher has selected a:

A. biased sample
B. a random population
C. nonrepresentative sample
D. random sample

68. Survey results will be more likely to accurately represent the opinions of the entire population if:

A. random sampling is used
B. a control group is used
C. a double-blind design is used
D. a single-blind design is used

69. Random sampling of a population is most likely to:

A. reduce external validity
B. reduce reactivity
C. produce a representative sample
D. allow validation of the data

70. Which of the following occurs when each person in a population has an equal chance of being selected to participate in a research study:

A. true experiment
B. random assignment
C. internal validity
D. random sampling

71. Naturalistic observation, case studies, and surveys are all examples of:

A. experimental research
B. descriptive research
C. double-blind research designs
D. single-blind research designs

72. Achievement tests measure an individual's:

A. current level of knowledge in a particular subject
B. potential for success in a given area
C. general intelligence and overall level of cognitive function
D. basic personality characteristics

73. At the end of her psychology class, Railene took a test designed to assess how well she had mastered the material. Railene's psychology final exam would most likely be considered to be:

A. an intelligence test
B. an achievement test
C. an aptitude test
D. a standardized correlational test

74. An aptitude test measures:

A. basic personality characteristics
B. current level of knowledge in a particular subject
C. general intelligence and overall level of cognitive function
D. potential for success in a given area

75. A test that is designed to measure one's potential success in a given area of study or profession is:

A. An achievement test
B. A personality test
C. An aptitude test
D. A reactivity test

76. In trying to determine which career would fit best with your abilities and interests, you would probably want to take a test that would measure your potential or talent for specific kinds of activities. The type of test that would measure this sort of potential would be:

A. an aptitude test
B. an intelligence test
C. a personalized case study
D. an achievement test

77. Measures of central tendency:

A. provide a value around which scores in a data set tend to cluster
B. indicate how much the scores in a data set differ from one another
C. can be used to decide whether the observed behavior in a sample is representative of some larger sample
D. assess whether two variables vary together in a systematic way

78. The value around which scores in a data set tend to cluster is called:

A. a measure of variability
B. a correlational coefficient
C. the standard deviation
D. a measure of central tendency

79. The mean for a data set is:

A. the most frequently occurring score
B. the middle point in the set of scores
C. the difference between the largest and smallest scores
D. the arithmetic average of the set of scores

80. The arithmetic average of a set of scores is:

A. the mode for the data set
B. the mean for the data set
C. the median for the data set
D. the standard deviation for the data set

81. On a recent quiz Lena and Robert both scored 7 points, Russell scored 2 points, and Carol scored 4 points. For these four students, the mean score on the quiz was:

A. 7.0 points
B. 5.0 points
C. 5.5 points
D. 4.3 points

82. A researcher timed three rats as they ran through a maze. The first rat took 10 seconds, the second rat took 12 seconds, and the last rat took 17 seconds. For these three rats, the mean time to run the maze was:

A. 12 seconds
B. 10 seconds
C. 17 seconds
D. 13 seconds

83. The mode for a data set is:

A. the arithmetic average of the set of scores
B. the middle point in the set of scores
C. the most frequently occurring score
D. the difference between the largest and smallest scores

84. The most frequently occurring score in a set of scores is:

A. the mean for the data set
B. the median for the data set
C. the mode for the data set
D. the standard deviation for the data set

85. Which of the following is NOT a measure of central tendency:

A. the mean
B. the median
C. the mode
D. the standard deviation

86. On a recent quiz, Ganesa and Javon both scored 7 points, Armand scored 2 points, and Odette scored 4 points. For these four students, the mode for the quiz was:

A. 5.0 points
B. 7.0 points
C. 5.5 points
D. 4.3 points

87. Dr. Pharis was studying memory in young children. Five children were asked to remember a list of words. Brad and Beverly each remembered 7 words. Sam remembered 6 words, Sally remembered 5 words, and Chad remembered 4 words. For these five children, the mode for the number of words that were recalled was:

A. 6.0 words
B. 6.5 words
C. 7.0 words
D. 5.8 words

88. The median for a data set is:

A. the arithmetic average of the set of scores
B. the middle point in the set of scores
C. the most frequently occurring score
D. the difference between the largest and smallest scores

89. The middle point in a set of scores is:

A. the median for the data set
B. the mean for the data set
C. the mode for the data set
D. the standard deviation for the data set

90. A researcher timed three rats as they ran through a maze. The first rat took 10 seconds, the second rat took 12 seconds, and the last rat took 17 seconds. For these three rats, the median time to run the maze was:

A. 10 seconds
B. 17 seconds
C. 12 seconds
D. 13 seconds

91. Carmen is in a class of 15 students. On the most recent exam, 7 students earned scores lower than Carmen's score, and 7 students scored higher than Carmen did. Based on this information, you can conclude that Carmen's score is:

A. equal to the mode for her class
B. equivalent to the mean for her class
C. the same as the median score for her class
D. the same as all three measures of central tendency for that particular exam

92. Dr. Gates was studying memory in young children. Five children were asked to remember a list of words. Judd and Caroline each remembered 7 words. Byron remembered 6 words, Eve remembered 5 words, and Gunther remembered 4 words. For these five children, the median number of words that were recalled was:

A. 6.5 words
B. 6.0 words
C. 7.0 words
D. 5.8 words

93. You obtained the following data (1, 1, 2, 4, 7). The mean, median, and mode of these data are:

A. 2, 1, 4
B. 3, 2, 1
C. 2, 3, 1
D. 1, 4, 2

94. Professor Jackson obtained the following scores on his first exam (100, 99, 99, 81, 72). The mode of these scores are:

A. 100
B. 99
C. 81
D. 72

95. The measure of central tendency that is most sensitive to extreme scores within the data set is:

A. the mode
B. the median
C. the standard deviation
D. the mean

96. The range for a data set is:

A. the difference between the largest and smallest scores
B. the arithmetic average of the set of scores
C. the most frequently occurring score
D. the middle point in the set of scores

97. The difference between the largest and smallest scores in a set of scores is:

A. the mean for the data set
B. the range for the data set
C. the mode for the data set
D. the median for the data set

98. Professor Yang observed the following scores in her first exam (100, 93, 81, 60). The range for these scores is:

A. About 100
B. About 81
C. About 40
D. About 1

99. Which of the following is a measure of variability:

A. the mean
B. the range
C. the mode
D. the median

100. Which of the following is a measure of variability:

A. the mean
B. the standard deviation
C. the mode
D. the median

101. The standard deviation for a data set:

A. is the arithmetic average of the set of scores
B. is the middle point in the set of scores
C. is the difference between the largest and smallest scores
D. indicates how much the individual scores vary from the mean

102. The value that indicates how much the individual scores in a data set vary from the mean is:

A. the standard deviation for the data set
B. the average for the data set
C. the mode for the data set
D. the median for the data set

103. Descriptive statistics help researchers:

A. decide whether the behavior observed in a sample is representative of some larger population
B. determine the likelihood that the pattern in the collected data occurred by chance
C. describe the data obtained in a research study
D. measure an individual's current level of knowledge in a particular area

104. Inferential statistics help researchers:

A. describe the data obtained in a research study
B. measure a person's potential for success in a given area
C. decide whether the behavior observed in a sample is representative of some larger population
D. measure an individual's current level of knowledge in a particular area

105. Inferential statistics help researchers:

A. describe the data obtained in a research study
B. determine the likelihood that the pattern in the collected data occurred by chance
C. measure a person's potential for success in a given area
D. measure an individual's current level of knowledge in a particular area

106. Dr. Burns is trying to determine whether the behavior that was observed in a sample is representative of behavior in the larger population. To help in making this determination, Dr. Burns should use:

A. inferential statistics
B. descriptive statistics
C. case study analysis
D. operational definitions

107. Dr. Duggan is trying to determine the likelihood that the pattern of responses in the data collected during a recent study occurred by chance. To help in making this determination, Dr. Duggan should use:

A. inferential statistics
B. descriptive statistics
C. case study analysis
D. operational definitions

108. You read that there is a statistically significant difference in the rate of depression among men and women. This means that the difference is not likely to be due to:

A. chance
B. reactivity
C. a confounded variable
D. an expectancy effect

109. The law of large numbers suggests that:

A. small samples cannot be expected to provide reliable indications of the true nature of events
B. the larger the sample size, the less likely it is that conclusions based on the sample will be accurate
C. the more people who know about a study, the less likely it is that deception can be used effectively
D. people who live in big cities will be less likely to volunteer for research studies

110. The law of large numbers suggests that:

A. small samples will provide the most reliable indications of the true nature of events
B. the less people who know about a study, the more likely it is that deception can be used effectively
C. the larger the sample size, the more likely it is that the conclusions based on the sample will be accurate
D. people who live in small towns will be more likely to volunteer for research studies

111. Teachers in a small town are protesting because their pay raises are based on teaching evaluations of one class period each year. They claim that such limited sampling of their teaching is likely to produce inaccurate evaluations, and they want at least five observations. The concept that supports their argument is:

A. operational definition
B. the law of large numbers
C. random assignment
D. the placebo effect

112. Nelson is an avid baseball fan who is excited by the fact that the hometown team won its first three games of the season. Based on this early performance, Nelson is looking forward to a record-breaking season. This faulty reasoning illustrates an error in statistical reasoning because:

A. later performance is seldom related to early performance
B. winning streaks usually only last for a short period of time
C. small samples are the most accurate in representing the population
D. small samples cannot be expected to provide reliable indications of "true" performance

113. Two researchers are trying to determine the true proportion of male and female babies born in certain Third World countries. Researcher 1 obtains the birth records from one hospital for a one-month period. Researcher 2 obtains the birth records from ten hospitals for an entire year. Based on the law of large numbers, it is likely that:

A. Researcher 1 will produce the most accurate results because smaller samples tend to be representative
B. Researcher 2 will produce the most accurate results because larger samples tend to be more representative
C. both researchers will have equally accurate results because sample size doesn't affect research results
D. neither researcher will have accurate results because the samples were not selected using the scientific method

114. Correlational research is a research method in which:

A. a representative sample of individuals is asked for their opinions
B. the research effort focuses on a single case
C. selected individuals are carefully observed in their natural environments
D. a researcher tries to determine the extent to which two variables influence each other

115. The research method which would be used to assess whether two variables vary together in a systematic way is:

A. case study research
B. naturalistic observation
C. correlational research
D. the survey method

116. As Behavior A decreases, Behavior B decreases by an equal amount. This pattern reflects:

A. a negative correlation
B. a zero correlation
C. a positive correlation
D. a third variable correlation

117. Dr. Phillips predicts that if the temperature of a room is increased, then individuals are more likely to act aggressively. This suggests that Dr. Phillips believes room temperature and aggression are:

A. negatively correlated
B. uncorrelated
C. positively correlated
D. both dependent variables

118. Dr. Ives predicts that if the noise level in a room is increased, then individuals are more likely to make errors on a complex task. This suggests that Dr. Ives believes noise level and errors are:

A. negatively correlated
B. uncorrelated
C. both dependent variables
D. positively correlated

119. If a correlation coefficient has a positive sign, it indicates that:

A. the two factors being measured move in opposite directions
B. the two factors being measured move in the same direction
C. there is no relationship between the two factors being measured
D. there is a significant relationship between the two factors being measured

120. Suppose the correlation between Behaviors X and Y is +.90 This means that:

A. as Behavior X increases, Behavior Y would be expected to decrease
B. as Behavior X increases, Behavior Y would be expected to increase
C. as Behavior X decreases, Behavior Y would be expected to increase
D. there is no predictable relationship between Behavior X and Behavior Y

121. As Behavior X increases, Behavior Y is expected to decrease. The correlation between X and Y is:

A. zero
B. negative
C. positive
D. it is impossible to determine with the information provided

122. As Behavior X increases, Behavior Y is expected to increase. The correlation between X and Y is:

A. zero
B. negative
C. positive
D. it is impossible to determine with the information provided

123. Imagine that the personality traits of openness and extroversion have a strong positive correlation. If Thaddeus has a score in openness that is extremely low:

A. he will probably have a score in extroversion that is quite high
B. he will probably also have a low score in extroversion
C. it is impossible to predict how he is likely to score on the extroversion scale without more information
D. his extroversion score will probably be about average (neither high nor low)

124. Dr. Theiss has found that students who score higher than 85% on the first midterm tend to earn scores of 75% or better on the final exam, while students who score less than 60% on the first midterm often end up with a failing grade on the final exam. This suggests that:

A. there is a relatively strong positive correlation between the scores on the first midterm and the scores on the final exam
B. there is a relatively strong negative correlation between the scores on the final exam and the scores on the first midterm
C. the scores on the final exam and the first midterm are not very highly correlated
D. students who do poorly on the first midterm give up and study less for the final exam

125. Dr. Kipp predicts that if the level of lighting on an assembly line is reduced, then worker productivity will increase. This suggests that Dr. Kipp believes lighting level and productivity are:

A. positively correlated
B. negatively correlated
C. uncorrelated
D. both dependent variables

126. Dr. Nodd predicts that if parents are nurturing and responsive, then children are less likely to act aggressively. This suggests that Dr. Nodd believes parental nurturance and children's aggression are:

A. positively correlated
B. uncorrelated
C. negatively correlated
D. both dependent variables

127. If a correlation coefficient has a negative sign, it indicates that:

A. the two factors being measured move in the same direction
B. the two factors being measured move in opposite directions
C. there is no relationship between the two factors being measured
D. there is a significant relationship between the two factors being measured

128. Researchers found a moderate correlation between the length of a customer's driveway and the size of the tips the customer gave pizza delivery people. The longer the driveway, the smaller the tip the delivery person received. The correlation coefficient that most likely represents this relationship would be:

A. +.90
B. -.45
C. +.45
D. -.90

129. Imagine that the personality traits of conscientiousness and extroversion have a strong negative correlation. If Heidi has a score in conscientiousness that is extremely low:

A. she will probably also have a low score in extroversion
B. it is impossible to predict how she is likely to score on the extroversion scale without more information
C. she will probably have a score in extroversion that is quite high
D. her extroversion score would probably be about average (neither high nor low)

130. Of the following, the correlation coefficient that indicates the strongest relationship between the two variables being measured is:

A. -0.89
B. +0.65
C. 0.00
D. +3.46

131. Which of the following is the maximum value for a correlation coefficient?

A. +0.50
B. +0.90
C. +1.00
D. +5.00

132. Which of the following is the minimum value for a correlation coefficient?

A. -0.50
B. -0.90
C. -1.00
D. -5.00

133. Which of the following is the range of possible values for a correlation coefficient?

A. -5.00 to +5.00
B. -2.00 to +2.00
C. -1.00 to +1.00
D. 0.00 to +1.00

134. Of the following, the correlation coefficient that indicates the weakest relationship between the two variables being measured is:

A. +0.01
B. +0.95
C. -0.69
D. -4.50

135. Suppose that Louise earned the highest score in the entire class on the first midterm exam, and in her class the final exam scores were the following: 12, 23, 34, 45, 56, 67, 78, 89, and 92. If the correlation between midterm exam scores and final exam scores for this class is +0.01:

A. you should expect that Louise earned the score of 56
B. you should expect that Louise earned the score of 92
C. you should expect that Louise earned the score of 12
D. you wouldn't be able to guess Louise's score because the correlation is so low

136. Suppose that Ralph earned the highest score in the entire class on the first midterm exam, and in his class the final exam scores were the following: 12, 23, 34, 45, 56, 67, 78, 89, and 92. If the correlation between midterm exam scores and final exam scores for this class is +0.97:

A. you should expect that Ralph earned the score of 12
B. you should expect that Ralph earned the score of 56
C. you should expect that Ralph earned the score of 92
D. you wouldn't be able to guess Ralph's score because the correlation is so low

137. Dr. Ep has found that no matter how students score on the first midterm, all the students in her class tend to score between 75% and 80% on the final exam. This suggests that:

A. there is a relatively strong positive correlation between the scores on the first midterm and the scores on the final exam
B. there is a relatively strong negative correlation between the scores on the final exam and the scores on the first midterm
C. the scores on the final exam and the first midterm are not very highly correlated
D. Dr. Ep should change the final exam so it is more fair to students who are not doing well in the course

138. When a correlation is not statistically different from zero:

A. a clear relationship exists between the two measures of interest, but the values move in opposite directions
B. knowing the value of one measure does not allow you to predict the value of the second measure with an accuracy greater than chance
C. high values on one measure will generally be associated with low values on the second measure
D. low values on one measure will generally be associated with low values on the second measure

139. In a scatterplot or scatter diagram:

A. the frequency for each score is plotted on the horizontal axis of the graph
B. paired X and Y scores for each subject are plotted as single points
C. a frequency polygon is used to plot the direction and strength of the relationship
D. high scores are plotted on the X axis and low scores are plotted on the Y axis

140. When Calvin creates a scatterplot that shows the amount of sleep and grades in school, the points on the scatterplot fall roughly along a line that slants up and to the right. Based on his scatterplot, Calvin can conclude that amount of sleep and grades in school:

A. are positively correlated
B. are negatively correlated
C. are only weakly correlated
D. have a cause-and-effect relationship

141. When Hyacinth creates a scatterplot that shows the number of bystanders who witness an emergency and the length of time for help to be given, the points on the scatterplot fall roughly along a line that slants down and to the right. Based on her scatterplot, Hyacinth can conclude that the number of witnesses and the time to offer help:

A. are positively correlated
B. are negatively correlated
C. are only weakly correlated
D. have a cause-and-effect relationship

142. Significant correlations permit researchers to:

A. determine cause-effect relationships
B. use one behavior to predict another
C. identify third variable relationships
D. assume that the relationship has good external validity

143. If a researcher found that room temperature and aggression had a strong negative correlation, it would indicate that:

A. low room temperatures tend to be associated with low levels of aggression
B. there is no relationship between room temperature and level of aggression
C. high room temperatures tend to be associated with low levels of aggression
D. increases in room temperature caused an increase in aggression

144. If a researcher found that family income and divorce rates had a strong positive correlation, it would indicate that:

A. low family income tends to be associated with high divorce rates
B. there is no relationship between family income and divorce rates
C. decreases in family income cause an increase in divorce rates
D. high family income tends to be associated with high divorce rates

145. If researchers discover a strong positive correlation between snoring and obesity, it would indicate that:

A. overweight individuals tend to snore more than underweight individuals
B. overweight individuals tend to snore less than underweight individuals
C. there is no relationship between weight and snoring
D. individuals who lose weight will increase the amount that they snore

146. If researchers discover a strong negative correlation between activity level and cholesterol level, it would indicate that:

A. people with low cholesterol levels tend to be less active than people with high cholesterol levels
B. there is no relationship between cholesterol level and activity level
C. individuals who lower their cholesterol level will become more sluggish
D. people with low cholesterol levels tend to be more active than people with high cholesterol levels

147. Identifying that a strong correlation exists between two variables allows a researcher to:

A. determine which of the variables is the independent variable
B. accurately predict the value of one variable from known values of the second variable
C. conclude that a positive, direct relationship exists between the two variables
D. calculate the strength of the cause-and-effect relationship between the two variables

148. In an experiment, the researcher:

A. changes some aspect of the environment and observes the effect of that change
B. makes observations of naturally occurring behavior and does not interfere in any way
C. takes measurements of two variables for every person in the group being observed
D. examines one person in great detail

149. Experimental research involves:

A. assessing the relationship between two variables to determine if they vary together in a systematic way
B. research focused on a single case in an effort to accumulate in-depth information about an issue
C. recording and describing naturally occurring behavior without any interference
D. active manipulation of some aspect of the environment in order to observe the effect on behavior

150. Active manipulation of some aspect of the environment, in order to observe the effect on behavior, is known as:

A. experimental research
B. correlational research
C. case study research
D. participant observation

151. The primary advantage of experimental research over correlational research is that experiments:

A. are easier to conduct than correlational studies
B. use descriptive statistics rather than inferential statistics
C. can determine cause-effect relationships
D. involve more natural behavior than correlational studies

152. Researchers wanted to determine if memory is affected by the way in which material is encoded. One group of research participants formed mental images of the objects to be remembered, while another group repeated the names of the objects to be remembered. The design of this study is consistent with:

A. correlational research
B. an experimental research procedure
C. case study research
D. naturalistic observation

153. Researchers wanted to determine if memory was affected by the context in which the material is recalled. One group of research participants memorized material and recalled material in the same setting; another group memorized material in one setting and recalled it in a different setting. The design of this study is consistent with:

A. correlational research
B. case study research
C. naturalistic observation
D. an experimental research procedure

154. Dr. Murawski wants to determine if musical appreciation is affected by listening conditions. One group of research participants listens to music in a darkened room while another group listens in a brightly lit room. The design of this study is consistent with:

A. an experimental research procedure
B. correlational research
C. case study research
D. naturalistic observation

155. Dr. Kresge wants to determine if accuracy in a task increases when it produces favorable outcomes. One group of research participants receives a small amount of money each time they make a correct response; another group receives nothing for making a correct response. The design of this study is consistent with:

A. correlational research
B. case study research
C. an experimental research procedure
D. naturalistic observation

156. The independent variable in an experiment is:

A. the behavior that is observed or measured
B. different for each participant in an experiment
C. the aspect of the environment that is manipulated or changed by the researcher
D. an external, uncontrolled factor that changes during the course of the experiment

157. The independent variable in an experiment is:

A. the behavior that is observed or measured
B. different for each participant in an experiment
C. an external, uncontrolled factor that changes during the course of the experiment
D. none of these choices

158. The aspect of the environment that is manipulated or changed by the researcher during the course of an experiment is:

A. the independent variable
B. the dependent variable
C. a confounding variable
D. a placebo

159. Researchers studying human memory presented people with two lists of words. One list included the names of objects; the other list contained abstract nouns. The researchers found that people could remember more words from the list with object names. In this study, the type of word in the word list (object name or abstract noun) would be:

A. a placebo
B. a confounding variable
C. the dependent variable
D. the independent variable

160. A group of researchers wanted to determine whether animals would be slower in learning a maze when they had been exposed to a particular drug. Half the animals received low doses of the drug, and the other half did not receive the drug. The researchers then counted how many times the animals had to run through the maze before they learned it. In this study, the independent variable is:

A. the amount of drug each animal is given (low dose or none)
B. the type of animal the researcher selects for the study
C. the number of trials it takes for each animal to learn the maze
D. the age of the animals selected

161. A group of researchers wanted to determine whether people would eat more food in a cool room than in a hot room. Half the participants ate in a warm room (75°F) and half the participants ate in a cool room (65°F). The researchers then measured how much food was consumed in each of the two rooms. In this study, the independent variable is:

A. the temperature of the room (75°F or 65°F)
B. the type of food the researcher selects for the study
C. the amount of food that is consumed
D. how hungry the participants are at the start of the study

162. Researchers studying plant growth raised plants in two different rooms. One room had soft music playing 24 hours a day; the other room was silent. The researchers found that the plants grew better in the room where the music was played. In this study, the type of room (soft music or silent) would be:

A. the independent variable
B. a placebo
C. the dependent variable
D. a confounding variable

163. Dr. Wilson sets up an experimental study to investigate how self-esteem is affected by feedback from teachers. During the study, third-grade teachers administer a short quiz where each child earns the same score (5 out of a possible 10 points). Half the children are told that this is a very good score, while the rest are told that it is an average score. In this study, the independent variable is:

A. the child's score on the quiz
B. the child's level of self-esteem after the quiz has been returned
C. the type of feedback the child receives (very good or average)
D. the age of the children who take part in the study

164. Researchers studying the effects of alcohol consumption tested the physical coordination skills of 21-year-old men who were first assigned to drink a beverage with 4, 2, or 0 ounces of alcohol in the laboratory. In this study, the independent variable would be:

A. the amount of alcohol consumed
B. the age of the research participants
C. the physical coordination skills of the research participants
D. the effects of alcohol consumption

165. Researchers studying the effects of caffeine tested the reaction times of women who first drank either a beverage with caffeine or a decaffeinated version of the same beverage. In this study, the type of beverage that each participant drinks would be:

A. a placebo
B. the dependent variable
C. the independent variable
D. a confounding variable

166. A group of researchers wanted to determine whether people were more likely to follow directions if the person giving the directions was in uniform. An individual wearing a security guard's uniform gave half the participants parking instructions, and half the participants were given parking instructions by an individual wearing street clothes. The researchers recorded whether the participants parked in the spot they were directed to. In this study, the independent variable is:

A. the parking spot the participant is directed to
B. the type of clothing worn by the person giving directions (uniform or street clothes)
C. the number of participants who follow the directions
D. the gender of the individual providing the directions

167. A group of researchers wanted to determine whether people would help someone in distress more quickly if they were alone. Half the participants were waiting alone in a room when they heard a cry for help, and half the participants were waiting with four other people when they heard a cry for help. The researchers then measured how long it took for help to be offered. In this study, the independent variable is:

A. how loud the cry for help is
B. the number of other people in the room (0 or 4)
C. how long it takes for help to be offered
D. the age of the participants in the study

168. Peter believes listening to relaxing music will improve memory. He designs a study in which 15 people listen to relaxing music while studying for 30 minutes and 15 people study in a quiet room for 30 minutes. He measures how much they remember from the material they studied. In this example, the independent variable is:

A. the amount that the participants remember from the material they study
B. what the participants hear while they study (relaxing music or no music)
C. the number of people who take part in the experiment
D. the length of time the participants were allowed to study the material

169. To discover whether highlighting terms in texts helps students learn, researchers had one group of students read a biology chapter with highlighted terms and had another group read the same chapter with the terms in normal type. Both groups then took the same 10-item test, and their scores were recorded. The independent variable in this experiment was:

A. the format of the chapter (highlighted terms or no highlighting)
B. the students' test performance (the test score)
C. the content of the chapter (the factual material)
D. the personal backgrounds of the students who participated (intelligence, age)

170. The dependent variable in an experiment is:

A. the aspect of the environment that is manipulated or changed by the researcher
B. is held constant during the course of an experiment
C. the behavior that is observed or measured
D. an external, uncontrolled factor that changes during the course of the experiment

171. The dependent variable in an experiment is:

A. the aspect of the environment that is manipulated or changed by the researcher
B. is held constant during the course of an experiment
C. an external, uncontrolled factor that changes during the course of the experiment
D. none of these choices

172. The behavior that is observed or measured during an experiment is:

A. the dependent variable
B. the independent variable
C. a confounding variable
D. a placebo

173. Researchers studying human memory presented people with two lists of words. One list included the names of objects; the other list contained abstract nouns. The researchers found that people could remember more words from the list with object names. In this study, the number of words recalled by each participant would be:

A. a placebo
B. the dependent variable
C. a confounding variable
D. the independent variable

174. Researchers studying the effects of alcohol consumption tested the physical coordination skills of 21-year-old men who were first assigned to drink a beverage with 4, 2, or 0 ounces of alcohol in the laboratory. In this study, the dependent variable would be:

A. the age of the research participants
B. the amount of alcohol consumed
C. the physical coordination skills of the research participants
D. the length of time that elapses between drinking the alcohol and taking the test

175. Researchers studying the effects of caffeine tested the reaction times of women who first drank either a beverage with caffeine or a decaffeinated version of the same beverage. In this study, the reaction time of each participant would be:

A. a placebo
B. a confounding variable
C. the independent variable
D. the dependent variable

176. A group of researchers wanted to determine whether animals would be slower in learning a maze when they had been exposed to a particular drug. Half the animals received low doses of the drug, and the other half did not receive the drug. The researchers then counted how many times the animals had to run through the maze before they learned it. In this study, the dependent variable is:

A. the number of trials it takes for each animal to learn the maze
B. the type of animal the researcher selects for the study
C. the amount of drug each animal is given (low dose or none)
D. the age of the animals selected

177. A group of researchers wanted to determine whether people would eat more food in a cool room than in a hot room. Half the participants ate in a warm room (75°F) and half the participants ate in a cool room (65°F). The researchers then measured how much food was consumed in each of the two rooms. In this study, the dependent variable is:

A. the temperature of the room (75°F or 65°F)
B. the type of food the researcher selects for the study
C. the amount of food that is consumed
D. how hungry the participants are at the start of the study

178. Dr. Wilson sets up an experimental study to investigate how self-esteem is affected by feedback from teachers. During the study, third-grade teachers administer a short quiz where each child earns the same score (5 out of a possible 10 points). Half the children are told that this is a very good score, while the rest are told that it is an average score. In this study, the dependent variable is:

A. the type of feedback the child receives (very good or average)
B. the child's score on the quiz
C. the age of the children who take part in the study
D. the child's level of self-esteem after the quiz has been returned

179. A group of researchers wanted to determine whether people were more likely to follow directions if the person giving the directions was in uniform. An individual wearing a security guard's uniform gave half the participants parking instructions, and half the participants were given parking instructions by an individual wearing street clothes. The researchers recorded whether the participants parked in the spot they were directed to. In this study, the dependent variable is:

A. the type of clothing worn by the person giving directions (uniform or street clothes)
B. the parking spot the participant is directed to
C. the number of participants who follow the directions
D. the gender of the individual providing the directions

180. Researchers studying plant growth raised plants in two different rooms. One room had soft music playing 24 hours a day; the other room was silent. The researchers found that the plants grew better in the room where the music was played. In this study, the amount that the plants grew would be:

A. the dependent variable
B. a placebo
C. a confounding variable
D. the independent variable

181. A group of researchers wanted to determine whether people would help someone in distress more quickly if they were alone. Half the participants were waiting alone in a room when they heard a cry for help, and half the participants were waiting with four other people when they heard a cry for help. The researchers then measured how long it took for help to be offered. In this study, the dependent variable is:

A. the number of other people in the room (0 or 4)
B. how long it takes for help to be offered
C. how loud the cry for help is
D. the age of the participants in the study

182. In an experimental study, the group of participants exposed to the experimental treatment or the changed conditions is:

A. the control group
B. the random group
C. the dependent variable group
D. the experimental group

183. In an experimental study, the experimental group consists of the participants:

A. who are not exposed to the experimental treatment
B. who are exposed to the experimental treatment or the changed conditions
C. who are not exposed to the dependent variable
D. who score the highest in the study

184. A group of researchers wanted to determine whether animals would be slower in learning a maze when they had been exposed to a particular drug. Half the animals received low doses of the drug, and the other half did not receive the drug. In this study, the experimental group is:

A. the animals who did not receive the drug
B. the animals who ran the maze the fastest
C. the animals who received the low doses of the drug
D. all the animals who took part in the study

185. In an experiment designed to investigate memory processes, one group of participants was given special instructions and asked to create mental pictures of each item on a list of items to be remembered. Another group of participants was given the same list but received no special instructions about how to remember the items. In this study, the experimental group is:

A. the participants who received the special instructions
B. the participants who received no special instructions
C. the participants who remembered the fewest items
D. all the participants in the study

186. Researchers studying the effects of caffeine on reaction times had participants drink either a beverage that contained caffeine or a decaffeinated version of the same beverage. In this study, the experimental group is:

A. the participants who drink the decaffeinated beverage
B. the participants with the slowest reaction times
C. all the people who take part in the study
D. the participants who drink the beverage with caffeine

187. Roland and Tabitha both take part in a research study that is investigating the effects of sleep deprivation on reaction time. Roland is kept awake for 24 hours straight, while Tabitha follows her normal sleep routine. In this study, Roland is part of:

A. the control group
B. the hypothesis group
C. the experimental group
D. the dependent variable group

188. In an experimental study, the group of participants who are not exposed to the experimental treatment is:

A. the experimental group
B. the random group
C. the dependent variable group
D. the control group

189. The control group in an experiment is the group that:

A. is not exposed to the dependent variable in the study
B. receives the lowest score on the dependent variable
C. receives some special treatment in regard to the independent variable
D. does not receive any special treatment in regard to the independent variable

190. A group of researchers wanted to determine whether children behave more aggressively after watching violent television programming. Half the children in the study watch a violent television show; the other children watch a nonviolent television program. In this study, the control group is:

A. the children who watch the violent show
B. the children who watch the nonviolent program
C. the children who behave the most aggressively at the end of the study
D. all the children who take part in the study

191. Researchers who were studying the effects of music on plant growth raised plants in two different rooms. One room had soft music playing 24 hours a day; the other room had no music. In this study, the control group is:

A. the plants in the room with no music
B. the plants in the room with the music
C. the plants that grow the most during the study
D. all the plants used during the study

192. Researchers studying the effects of alcohol consumption tested the physical coordination skills of 21-year-old men who were first assigned to drink a beverage with either 2 ounces of alcohol or no alcohol. In this study, the control group is:

A. the men who drink the nonalcoholic beverage
B. the men who drink the alcoholic beverage
C. the men who have the slowest reaction times
D. all the men who take part in the study

193. Dr. Krenshaw believes that people who are under stress will develop more colds than people who are not under stress. When he randomly selects 20 participants and exposes them to high levels of stress, he finds that 17 of the participants develop colds. Based on these results, Dr. Krenshaw concludes that stress causes an increase in the number of colds a person experiences. His reasoning may be flawed because in this study:

A. there was no dependent variable
B. there was no control group for comparison
C. he didn't formulate a hypothesis before he collected his data
D. he didn't measure the independent variable when the study ended

194. Kyle believes that patrons in his bar will be more likely to leave a tip if the tip jar already has some money in it, compared to when the tip jar is completely empty. To test this belief, he has the tip jar empty about half the time when a customer approaches the bar; the rest of the time he ensures there is at least $5.00 in the jar when a customer approaches. In Kyle's experiment, the patrons who see the empty tip jar are part of:

A. the control group
B. the hypothesis group
C. the experimental group
D. the dependent variable group

195. A confounding variable is:

A. the dependent variable in an experimental study
B. a factor that is held constant during an experimental study
C. a variable that is defined in terms of how it will be measured
D. an uncontrolled variable that changes systematically with the independent variable

196. Any uncontrolled variable that changes systematically with the independent variable is:

A. a dependent variable
B. a correlation coefficient
C. a theoretical construct
D. a confounding variable

197. A confounding variable in an experiment is an uncontrolled variable that:

A. increases the internal validity of the experiment
B. reduces the problem of expectancy effects
C. is produced by random assignment
D. varies systematically with the independent variable

198. Chantelle conducts a memory experiment to determine if people find it easier to remember concrete objects (such as cars and dogs) or abstract concepts (such as truth and justice). Chantelle gives the list of concrete objects to all the male participants, and all the female participants receive the list of abstract concepts. In this experiment, Chantelle needs to be concerned about internal validity because:

A. there are two control groups and no experimental group
B. the gender of the participants is a confounding variable
C. the type of words on the list to be memorized is a confounding variable
D. there is no dependent variable in the experiment

199. Harrison conducts a decision-making experiment to determine if people reason more logically when they have more time to decide. Harrison allows all the participants who are under 40 years of age 15 minutes to reach a decision about a problem; all the participants who are over 40 years of age are allowed 20 minutes to reach a decision about the same problem. In this study, Harrison needs to be concerned about internal validity because:

A. there are two control groups and no experimental group
B. the length of time allowed for the decision is a confounding variable
C. there is no dependent variable in the experiment
D. the age of the participants is a confounding variable

200. Donald received a poor grade on his last exam. In an attempt to improve his performance on the next exam, he has started to use a different note-taking method, he has enrolled in a study skills class, and he has moved to a seat that is closer to the front of the class. If Donald's score goes up on the next exam, it will be hard for him to figure out why because:

A. he failed to use a double-blind procedure
B. the three actions he took to raise his grade are confounded with each other
C. none of the actions he took is generally related to grades in school
D. he doesn't have a research hypothesis

201. Fred's advisor noticed that he had not included the same words in each list used to test whether the color of ink affects memory. This meant the lists differed in both content and ink color. Fred won't be able to easily interpret his results because:

A. reactivity has occurred
B. his data have poor external validity
C. his experiment included a confounding variable
D. he did not use a control group

202. The internal validity of an experiment can be increased:

A. by holding the value of the dependent variable constant throughout the study
B. by effectively controlling any potential confounding variables
C. if the value of the independent variable is the same for both the experimental and the control groups
D. if there is no control group in the study

203. In Dr. Parker's recent experiment, he was able to determine that a new drug caused a lowering of cholesterol levels. His experiment was free of confounds; thus, it has:

A. operational definition
B. internal validity
C. external validity
D. central tendency

204. The internal validity of an experiment can be increased:

A. by randomly assigning participants to each of the conditions in the experiment
B. by ensuring there are at least two confounding variables
C. by using the case study method of research
D. by keeping the value of the independent variable the same for both the experimental and control groups

205. Research participants are randomly assigned to different conditions in an experiment in order to:

A. increase the likelihood that differences among the participants will be equally represented in each group
B. reduce the likelihood that participants will know each other
C. reduce the likelihood that research participants will be biased in their responses
D. increase the likelihood that the different experimental conditions have the same number of participants

206. Random assignment to either the control or experimental group is an important aspect of experimental procedures. Random assignment is used to ensure that:

A. a representative sample of participants is initially selected
B. expectancy effects are minimized within the experiment
C. the independent variable will be reliable and valid
D. the experimental group and the control group are as similar as possible

207. If random assignment is used, researchers assume that differences in group performance are not due to:

A. experimenter expectancies about the experiment
B. differences in the personal characteristics of subjects in each group
C. subject expectancies about the experiment
D. the environmental conditions that are intentionally manipulated in the experiment

208. Jeff plans to conduct a small experiment with some of his friends. He writes the ten names on slips of paper and mixes them up in a bowl. He then draws the names one at a time. The first five names are assigned to the experimental group, and the last five names are assigned to the control group. In this example, Jeff's procedure illustrates:

A. a single-blind research design
B. the use of random assignment
C. correlational research
D. informed consent

209. Scarlett plans to conduct a small experiment with some of her friends. She asks them each to decide to which condition of the experiment they would like to be assigned. In this example, Scarlett's procedure illustrates:

A. a double-blind research design
B. the use of nonrandom assignment
C. correlational research
D. informed consent

210. A placebo is:

A. an active drug that is given to the experimental group in a research study
B. only used in correlational research studies
C. an inactive or inert substance that appears to be a real drug
D. is not necessary if a single-blind research procedure is used

211. An inactive or inert substance that appears to be a real drug is called:

A. a confounding variable
B. a placebo
C. a random variable
D. a theoretical construct

212. A participant who receives a placebo is likely to be in which of the following:

A. an experimental group
B. a survey research study
C. a naturalistic observation study
D. a control group

213. If a placebo is used, researchers assume that differences in group performance are not due to:

A. experimenter expectancies about the experiment
B. differences in the personal characteristics of subjects in each group
C. subject expectancies about the experiment
D. the environmental conditions that are intentionally manipulated in the experiment

214. A researcher was investigating the link between memory and caffeine. Half the participants were given a caffeinated beverage before being asked to memorize a word list; the other participants were given a decaffeinated beverage before being asked to memorize the same word list. In this research study, the decaffeinated beverage would be:

A. a placebo
B. a confounding variable
C. the dependent variable
D. an inferential variable

215. In a single-blind study:

A. each participant is part of both the experimental and control group
B. all confounding variables are eliminated from the study
C. both the experimental and control groups receive placebos
D. research participants are uncertain whether they are in the experimental or control group

216. When research participants are uncertain whether they are in the experimental or control group, but the researchers are aware which group each participant is in, the research study utilizes:

A. a double-blind design
B. a single-blind design
C. confounded variables
D. a triple-blind design

217. The main advantage of a single-blind research study is that it minimizes the effect of:

A. expectations by both the experimenter and the participants
B. expectations in the participants
C. the independent variable
D. any confounding variables

218. Pamela signed up for a study that would test the effects of a new experimental drug. She knew that only half the participants would actually receive the drug, while the rest would receive a placebo. However, Pamela is unsure whether the drug she is receiving is real. Pamela is taking part in:

A. a single-blind research study
B. an unethical experiment
C. a case study
D. a study with no external validity

219. Jameson signed up for a study that was investigating whether memory could be enhanced using a hormone supplement. He knows that half the participants are receiving a placebo, while the rest are receiving the actual hormone. However, Jameson doesn't know if he is in the experimental group or the control group. Jameson is taking part in:

A. a poorly designed study
B. a single-blind research study
C. an unethical experiment
D. a participant observation study

220. Experimenter expectancy effects occur when the researcher:

A. knows the experimental hypothesis that is being tested
B. uses a double-blind experimental design
C. fails to use random assignment in an experiment
D. unknowingly influences the results of a study in subtle ways

221. One method that can control for experimenter expectancy effects is to use:

A. a single-blind procedure
B. two control groups
C. random assignment
D. a double-blind procedure

222. In a double-blind study:

A. each participant is part of both the experimental and control group
B. the researchers administering the treatment do not know which participants are in the experimental group
C. all confounding variables are eliminated from the study
D. both the experimental and control groups receive placebos

223. Neither the subjects nor the experimenter recording the data knows which subjects belong to a particular group. This is an example of:

A. a confounding variable
B. random assignment
C. a double-blind experiment
D. a single-blind experiment

224. Studies involving which of the following are NOT likely to result in participants' having expectancies about the outcome of the research:

A. a confounding variable
B. random assignment
C. a double-blind procedure
D. an operational definition

225. Meredith is a doctor whose patients are participants in a research study testing a new cholesterol medication. Neither Meredith nor her patients knows whether the patients are receiving the new experimental drug or a placebo. This is an example of:

A. a confounding variable
B. random assignment
C. a double-blind experiment
D. a single-blind experiment

226. The main advantage of a double-blind research study is that it minimizes the effect of:

A. the dependent variable
B. the independent variable
C. expectations by both the experimenter and the participants
D. any confounding variables

227. When the researchers who make the direct observations and administer the treatment during an experiment are uncertain which participants are receiving the experimental treatment, and which are receiving a placebo, the research study utilizes:

A. a single-blind design
B. a double-blind design
C. confounded variables
D. a triple-blind design

228. Dr. Marcus designs an experiment to test the effects of a new drug on learning. The drug is injected into one group of rats, while another group of rats receives a saline injection. Dr. Marcus designs the study so that the researchers administering the drug and recording the data are not certain which rats are receiving the treatment and which are receiving the placebo. Dr. Marcus has designed:

A. an unethical experiment
B. a single-blind research study
C. a double-blind research study
D. a study that will maximize participant expectancy effects

229. Dr. Brown designs an experiment to test the effects of a new memory drug. Half the participants will receive a placebo and half will receive the actual drug, but neither the participants nor the researchers administering the drug will be informed which is the placebo. Dr. Brown has designed:

A. an unethical experiment
B. a double-blind research study
C. a single-blind research study
D. a study that will maximize participant expectancy effects

230. Researchers use the term external validity to refer to:

A. effective control of potential confounding variables
B. how well research results generalize across subjects and situations
C. research results that are statistically significant
D. results obtained from research conducted in naturalistic settings

231. When research results generalize across subjects and situations, those results are considered to be:

A. internally valid
B. positively correlated
C. externally valid
D. statistically significant

232. The use of deception in research is controversial because it conflicts with the ethical requirement of:

A. debriefing
B. confidentiality
C. compensation
D. informed consent

233. Telling potential research participants the nature and possible risks of the research prior to their participation is part of the ethical requirement of:

A. informed consent
B. debriefing
C. confidentiality
D. compensation

234. The ethical practice that involves explaining, in easy-to-understand language, any significant factors that might influence a participant's willingness to participate in a research study is known as:

A. informed consent
B. debriefing
C. confidentiality
D. experimental control

235. Informed consent involves:

A. explaining any significant factors that might influence a participant's willingness to participate in a study
B. fully disclosing and explaining all aspects of a study, once the study is over
C. protecting the right to privacy of all the participants in a research study
D. asking participants to sign a waiver form at the beginning of a study

236. Dr. Kinder is investigating the link between social support networks and grades in school. Students in his classes are required to complete survey forms related to this research. If a survey form is not completed by the end of the semester, a student's grade is reduced by 10 points. In this case, some researchers might argue that Dr. Kinder's research violates the ethical principle of:

A. Informed consent
B. Debriefing and Confidentiality
C. Protection from potential harm
D. Unjustified use of deception

237. According to the guidelines established by the American Psychological Association (APA), researchers can:

A. never use deception in a research study
B. only use deception if the deception is fully disclosed during the debriefing
C. only use deception if the participants are paid for taking part in the study
D. only use deception in descriptive research

238. The ethical practice in which the purpose of a study is fully disclosed to the study's participants, once the study is over, is known as:

A. informed consent
B. debriefing
C. confidentiality
D. experimental control

239. Debriefing involves:

A. explaining any significant factors that might influence a participant's willingness to participate in a study
B. protecting the right to privacy of all the participants in a research study
C. asking participants to sign a waiver form at the beginning of a study
D. fully disclosing and explaining all aspects of a research study, once the study is over

240. Debriefing involves:

A. explaining any significant factors that might influence a participant's willingness to participate in a study
B. protecting the right to privacy of all the participants in a research study
C. asking participants to sign a waiver form at the beginning of a study
D. none of these choices

241. A research study involving which of the following is likely to involve a debriefing session.

A. dependent variable
B. operational definition
C. deception
D. internal validity

242. When the experiment ended, Raj told subjects the purpose of the experiment, what he hoped to learn, and who to contact for further information about the results. This was part of the ethical requirement of:

A. humane treatment
B. informed consent
C. confidentiality
D. debriefing

243. Angelica took part in a research study where she had to sit alone in a darkened room for 30 minutes before completing a brief questionnaire about her future goals and plans. When she had completed the questionnaire, she was told the experiment was over. Angelica never really understood the purpose of the study, and she wasn't sure why she had to wait in the darkened room before filling out the short questionnaire. In this case, it would appear that the researchers who conducted the experiment:

A. violated Angelica's right to confidentiality
B. failed to obtain informed consent
C. did not use an adequate debriefing procedure
D. did not provide adequate protection from potential harm

244. Keeping personal information about research participants private is part of the ethical requirement of:

A. debriefing
B. informed consent
C. compensation
D. confidentiality

245. Keeping personal information about research participants private is part of the ethical requirement of:

A. debriefing
B. informed consent
C. compensation
D. none of these choices

246. The ethical practice in which the right to privacy of all research participants is maintained is known as:

A. informed consent
B. debriefing
C. confidentiality
D. experimental control

247. Confidentiality involves:

A. explaining any significant factors that might influence a participant's willingness to participate in a study
B. fully disclosing and explaining all aspects of a study, once the study is over
C. protecting the right to privacy of all the participants in a research study
D. asking participants to sign a waiver form at the beginning of a study

248. Ezekial Zarnak III took part in a study on depression last year. He was somewhat distressed to read a recent article on depression in Newsweek where one of the patients was EZ3. Although the article claimed the names were disguised to protect personal identities, Ezekial is certain he is one of the people described in the article. In this case, it would appear that the researchers violated the ethical principle of:

A. confidentiality
B. informed consent
C. debriefing
D. full disclosure

249. One of the main reasons for using animals as subjects in a research study is that:

A. researchers are not bound by ethical restrictions in designing their studies
B. experimenters have better experimental control
C. animal research is much less expensive than comparable human research
D. it is not necessary to use a control group for comparison

250. The percentage of current psychological research studies in which animals are used is about:

A. 90%
B. 50%
C. 25%
D. less than 10%