1. Dr. DeVries is interested in measuring how practice in problem solving affects this ability. The population of interest is high school seniors, and the sample consists of students who attend an exclusive college preparatory school. Half of the sample receives practice in solving particular types of problems, while the other half does not. Both groups take the same problem-solving test. Which of the following might best explain why Dr. DeVries may not be able to generalize his findings?
   A) He is not taking into account how the scores on the test might deviate from one another.
   B) His data may be positively skewed.
   C) He should have conducted his experiment in a lab instead of a natural setting.
   D) His sample is not representative of the population.
   E) He did not receive approval from an Institutional Review Board (IRB) before beginning his research.

2. Which procedure helps to ensure that the participants in a survey are representative of a larger population?
   A) random assignment
   B) replication
   C) correlation
   D) naturalistic observation
   E) random sampling

3. Which of the following statements is most correct about the relationship between correlation and causation?
   A) Correlations are statistical relationships, causations are logical relationships.
   B) Correlation indicates the possibility of a causal relationship, but it does not prove causation.
   C) If one variable is strongly positively correlated with another variable, the relationship is causal.
   D) If one variable is strongly negatively correlated with another variable, the relationship is not causal.
   E) Both correlations and causations need to be proven with experimental data.

4. Six different high school students spent $10, $13, $2, $12, $13, and $4, respectively, on entertainment. The mode of this group's entertainment expenditures is
   A) $9.
   B) $10.
   C) $11.
   D) $12.
   E) $13.
5. Abdul has volunteered to participate in an experiment evaluating the effectiveness of aspirin. Neither he nor the experimenters know whether the pills he takes during the experiment contain aspirin or are merely placebos. The investigators are apparently making use of
A) naturalistic observation.
B) illusory correlation.
C) the double-blind procedure.
D) random sampling.
E) the overconfidence effect.

6. The range is
A) a total population from which samples may be drawn.
B) the difference between the highest and lowest scores in a distribution.
C) the most commonly used measure of variation.
D) the average deviation of scores from the mean.
E) the most frequently occurring score in a distribution of scores.

7. In 1953, H.M. underwent surgery to control his seizures. Doctors removed tissue from the hippocampus. As a result H.M.'s memory was severely impaired. Psychologists studied H.M.'s memory function until his death in 2008. Which research method did the psychologists utilize in this situation?
A) naturalistic observation
B) correlation
C) survey
D) experimentation
E) case study

8. Which technique involves repeating the essence of an earlier research study with different participants and in different circumstances?
A) replication
B) correlational research
C) random sampling
D) naturalistic observation
E) the double-blind procedure

9. Correlational research is most useful for purposes of
A) explanation.
B) prediction.
C) control.
D) replication.
E) experimentation.
10. Which makes finding statistical significance more likely?
   A) random sampling
   B) skewed distributions
   C) small sample size
   D) large sample size
   E) operational definitions

11. Alexandra is told that research supports the value of cosmetic surgery for boosting self-esteem. Belinda is told that the esteem-enhancing value of cosmetic surgery has been refuted by research. Both women would consider the findings to be common sense. This best illustrates the power of
   A) random sampling.
   B) overconfidence.
   C) the hindsight bias.
   D) illusory correlation.
   E) the double-blind procedure.

12. To assess reactions to a proposed tuition hike at her college, Ariana sent a questionnaire to every fifteenth person in the college registrar's alphabetical listing of all currently enrolled students. Ariana employed the technique of
   A) random assignment.
   B) naturalistic observation.
   C) replication.
   D) correlation.
   E) random sampling.

13. According to Professor Fayad, we like people who like us because their affection for us boosts our own self-esteem. His idea is an example of
   A) naturalistic observation.
   B) illusory correlation.
   C) hindsight bias.
   D) replication.
   E) a theory.
14. Slender women are considered especially beautiful in one country; in another country, stout women are seen as particularly attractive. In both countries, however, women perceived as very beautiful receive preferential treatment. This best illustrates that _______ often underlie cultural differences.
A) negative correlations
B) common psychological processes
C) gender differences
D) unconscious preferences
E) genetic dissimilarities

15. To exercise maximum control over the factors they are interested in studying, researchers engage in
A) case studies.
B) correlational research.
C) experimentation.
D) replication.
E) surveys.

16. Psychologists who carefully watch the behavior of chimpanzee societies in the jungle are using a research method known as
A) the survey.
B) experimentation.
C) naturalistic observation.
D) the case study.
E) random sampling.

17. If psychologists discovered that wealthy people are less satisfied with their marriages than poor people are, this would indicate that wealth and marital satisfaction are
A) causally related.
B) negatively correlated.
C) independent variables.
D) dependent variables.
E) positively correlated.

18. An experiment was designed to study the potential impact of alcohol consumption on emotional stability. A specification of the procedures used to measure emotional stability illustrates
A) the independent variable.
B) an operational definition.
C) the double-blind procedure.
D) random assignment.
E) the dependent variable.
19. In a drug treatment study, participants given a pill containing no actual drug are receiving a(n)
A) random sample.
B) experimental treatment.
C) double-blind.
D) replication.
E) placebo.

20. The news media reported that a new pesticide was not harmful to humans. Which of the following statements best exemplifies critical thinking in response to this report?
A) “I think I will try this pesticide on my own garden to kill pests.”
B) “I don't like to use pesticides, but this one is safe.”
C) “I think I'll use this product, but I think I'll wear gloves.”
D) “I wonder who funded this study?”
E) “I don't believe this study because I got a rash after using this poison on my garden.”

21. On a 10-item test, three students in Professor Hsin's advanced chemistry seminar received scores of 2, 5, and 8, respectively. For this distribution of test scores, the standard deviation is equal to the square root of
A) 3.
B) 4.
C) 5.
D) 6.
E) 9.

22. Which of the following correlations between self-esteem and body weight would enable you to most accurately predict body weight from knowledge of level of self-esteem?
A) +0.60
B) +0.01
C) –0.10
D) –0.06
E) 0.00

23. During the last Central High School basketball game, the starting five players scored 11, 7, 21, 14, and 7 points, respectively. For this distribution of scores, the range is
A) 7.
B) 11.
C) 12.
D) 14.
E) 21.
24. Psychologists' personal values and goals
   A) are carefully tested by means of observation and experimentation.
   B) lead them to avoid experiments involving human participants.
   C) can bias their observations and interpretations.
   D) have very little influence on the process of scientific observation.
   E) affect their work only if they are different from the norm.

25. Mr. and Mrs. Berry have five children aged 2, 3, 7, 9, and 9. The median age of the Berry children is
   A) 3.
   B) 6.
   C) 7.
   D) 8.
   E) 9.

26. Because she had a serious traffic accident on Friday the 13th of last month, Felicia is convinced that all Friday the 13ths will bring bad luck. Felicia's belief best illustrates
   A) the illusion of control.
   B) illusory correlation.
   C) the hindsight bias.
   D) overconfidence.
   E) random sampling.

27. The enduring traditions, attitudes, and behaviors shared by a large group of people constitutes their
   A) culture.
   B) normal curve.
   C) wording effects.
   D) statistical significance.
   E) operational definition.

28. During the past year, Zara and Ivan each read 2 books, but George read 9, Ali read 12, and Marsha read 25. The median number of books read by these individuals was
   A) 2.
   B) 50.
   C) 10.
   D) 12.
   E) 9.
29. How would a researcher likely respond to the statement, “Science can't really prove anything, because lab experiments are so artificial and not like the real world”?
A) “That's not true. Lab experiments are usually very realistic.”
B) “Most experiments aren't done in the laboratory.”
C) “The goal of science is to establish hypotheses, not prove things.”
D) “Laboratory experiments can establish general principles that generalize to other contexts.”
E) “When operational definitions are inadequate, laboratory experiments are the only choice.”

30. In the hypothesis “Students who study a list of terms in the morning, just after waking up, will recall more terms than students who study the list just before falling asleep,” what is the independent variable?
A) list of terms
B) memorization
C) time of day
D) number of terms remembered
E) students

31. Researchers are interested in studying the relationship between poor prenatal nutrition and early cognitive development. Because of ethical concerns, which research method would be most appropriate for researchers to use?
A) survey
B) case study
C) experimentation
D) correlational
E) naturalistic observation

32. In an experiment designed to study the effectiveness of a new drug, research participants who receive a placebo are participating in the ________ condition.
A) dependent variable
B) correlational
C) experimental
D) replication
E) control

33. What is the primary limitation of the case study research method?
A) It is not an empirical method.
B) The case study is not part of the scientific method.
C) Random sampling must be used to ensure representative findings.
D) Individual cases can be misleading and result in false generalizations.
E) Correlational findings from case studies cannot be interpreted as causal.
34. Seven members of a Girl Scout troop report the following individual earnings from their sale of candy: $4, $1, $7, $6, $8, $2, and $7. In this distribution of individual earnings
A) the mean is equal to the mode and equal to the median.
B) the mean is less than the mode and equal to the median.
C) the mean is equal to the mode and greater than the median.
D) the mean is greater than the mode and greater than the median.
E) the mean is less than the mode and less than the median.

35. For which of the following distributions of scores would the median most clearly be a more appropriate measure of central tendency than the mean?
A) 9, 8, 9, 8, 7
B) 10, 22, 8, 9, 6
C) 12, 6, 8, 5, 4
D) 12, 15, 12, 9, 12
E) 23, 7, 3, 27, 16

36. Professor Delano suggests that because people are especially attracted to those who are good-looking, handsome men will be more successful than average-looking men in getting a job. The professor's prediction regarding employment success is an example of
A) the hindsight bias.
B) the placebo effect.
C) a hypothesis.
D) illusory correlation.
E) an operational definition.

37. Which of the following is true for those assigned to a control group?
A) The experimenter exerts the greatest influence on participants' behavior.
B) The research participants are exposed to all the different experimental treatments.
C) The research participants are exposed to the most favorable levels of experimental treatment.
D) The experimental treatment is absent.
E) The operational definition is not applied to their variables.

38. Seven members of a boys' club reported the following individual earnings from their sale of cookies: $2, $9, $8, $10, $4, $9, and $7. In this distribution of individual earnings
A) the median is greater than the mean and greater than the mode.
B) the median is less than the mean and less than the mode.
C) the median is greater than the mean and less than the mode.
D) the median is less than the mean and greater than the mode.
E) the median is equal to the mean and equal to the mode.
39. Professor Ambra was skeptical about the accuracy of recently reported research on sleep deprivation. Which process would best enable her to assess the reliability of these findings?
   A) naturalistic observation
   B) replication
   C) random sampling
   D) the case study
   E) standard deviation

40. What do researchers call a difference between the means of experimental and control groups when they know the averages are reliable and the difference between the groups is unlikely due to random chance or extraneous variables?
   A) operationally defined
   B) statistically significant
   C) normal curve
   D) standard deviation
   E) experimental group

41. Which of the following defines ethical principles that should guide human experimentation?
   A) control group, random sampling, random assignment
   B) case study, naturalistic observation, survey
   C) informed consent, protection from harm, confidentiality, debriefing
   D) volunteer participants only, no deception, incentives for participation
   E) effect size, statistical significance, measures of central tendency, variation

42. To compare the pace of life in different countries, investigators measured the speed with which postal clerks completed a simple request. This best illustrates the use of a research method known as
   A) the case study.
   B) naturalistic observation.
   C) random assignment.
   D) the double-blind procedure.
   E) the survey.

43. The scientific attitude of humility is most likely to be undermined by
   A) the hindsight bias.
   B) correlational evidence.
   C) random assignment.
   D) operational definitions.
   E) naturalistic observation.
44. Why is replication important to science?
   A) It allows you to obtain a representative sample of cases to study.
   B) The natural setting eliminates the artificial environment of a lab.
   C) Repeated research with similar results increases confidence in the reliability of the original findings.
   D) Researchers can test the impact of belief on behavior.
   E) Minimizing preexisting differences between groups increases confidence in the findings.

45. Historians of science describe which three attitudes as the basis of the scientific viewpoint?
   A) intelligence, dedication, thoroughness
   B) morality, detail-orientation, cynicism
   C) achievement-oriented, intellectual, empirical
   D) curiosity, skepticism, humility
   E) atheism, humanism, cognition

46. If college graduates typically earn more money than high school graduates, this would indicate that level of education and income are
   A) causally related.
   B) positively correlated.
   C) independent variables.
   D) dependent variables.
   E) negatively correlated.

47. A soft drink company recently invested in a new advertising campaign to increase sales. Which of the following would allow executives to best judge the results of their latest commercials?
   A) compute the range based on the highest monthly sales this year with the lowest sales of last year
   B) compare the mean sales of soft drinks with that of their major competitor
   C) compute the mode to determine which soft drinks have the highest sales
   D) compare the means of sales before and after the beginning of the new campaign to determine statistical significance
   E) compute the median of sales for each of their product lines, then compare
48. For which of the following distributions of scores would the median most clearly be a more appropriate measure of central tendency than the mean?
   A) 16, 28, 4, 8, 24
   B) 9, 6, 9, 12, 9
   C) 8, 9, 12, 10, 16
   D) 6, 18, 4, 5, 2
   E) 3, 4, 3, 4, 2

49. Our tendency to believe we know more than we do illustrates
   A) naturalistic observation.
   B) illusory correlation.
   C) overconfidence.
   D) the standard deviation.
   E) placebo.

50. A majority of respondents in a national survey agreed that “classroom prayer should not be allowed in public schools.” Only 33 percent of respondents in a similar survey agreed that “classroom prayer in public schools should be banned.” These divergent findings best illustrate the importance of
   A) operational definition.
   B) the hindsight bias.
   C) overconfidence.
   D) random assignment.
   E) wording effects.
Answer Key

1. D
2. E
3. B
4. E
5. C
6. B
7. E
8. A
9. B
10. D
11. C
12. E
13. E
14. B
15. C
16. C
17. B
18. B
19. E
20. D
21. D
22. A
23. D
24. C
25. C
26. B
27. A
28. E
29. D
30. C
31. D
32. E
33. D
34. E
35. B
36. C
37. D
38. D
39. B
40. B
41. C
42. B
43. A
44. C
45. D
46. B
47. D
48. D
49. C
50. E