## Research Methods

- 1. Which of the following research methods does not permit researchers to draw conclusions regarding cause-and-effect relationships?
  - (A) Experimental research
  - (B) Surveys
  - (C) Case studies
  - (D) Correlational research
  - (E) Naturalistic observations
- 2. A random sample can best be defined as:
  - (A) A sample in which each potential participant has an equal chance of being selected
  - (B) A sample that is carefully chosen so the characteristics of participants correspond to the larger population
  - (C) A selection of cases from a larger population
  - (D) A selection of cases from the control group
  - (E) A sample of a larger population from the experimental group
- **3.** The Hawthorne effect is best defined as:
  - (A) Expectations by the experimenter that can influence the results of an experiment
  - (B) The change in the results of an experiment when it is "blind" versus "double blind"
  - (C) The idea that people will alter their behavior because of the researchers' attention and not because of actual treatment
  - (D) Specific, testable predictions derived from a theory
  - (E) The idea that subjects in an experiment will lie if the researcher tells them to

- **4.** Dr. Bisell conducts an experiment to see whether hunger makes mice run faster through a maze. He randomly assigns 25 mice to a control group or an experimental group. Which cannot be a confounding variable?
  - (A) Where the experiment takes place
  - (B) How hungry the mice were before the experiment
  - (C) How fast the mice are before the race
  - (D) When the experiment takes place
  - (E) The population from which he selected the mice
- 5. Marc, a psychology major, collected survey data about the number of hours that college students study for finals and their grades on those finals. His data indicates that students who spend more time studying for finals tend to do better than other students. What can Marc now conclude?
  - (A) Studying improves a student's grade on a final exam.
  - (B) A relationship exists between studying and exam grades.
  - (C) A significant relationship exists between studying and grades.
  - (D) Students who do not study for final exams will not do well on those exams.
  - (E) Students with higher IQs tend to study more than those with lower IQs.
- 6. Jordan runs an experiment testing the effects of sugar consumption on aggression levels in children. He randomly assigns 20 subjects either to a control group given sugar-free candy or to the experimental group that was given the same candy that did contain sugar. He then tests the subjects' response to several different puzzles, each with increasing difficulty. Jordan hypothesizes that sugar levels do play a role in aggression in children. In order to know whether his hypothesis has been supported, Jordan will need to use:
  - (A) Descriptive statistics
  - (B) Means-to-end statistics
  - (C) Experimental research
  - (D) Scatter plots
  - (E) Inferential statistics
- 7. Which of the following coefficients of a correlation indicate the weakest relationship between two variables?
  - (A) 0.51
  - (B) -0.28
  - (C) 0.08
  - (D) -1.00
  - (E) 1.00

- The observation in a classroom that the higher the room temperature, the 8. lower student performance would be an example of:
  - (A) Negative correlation
  - (B) Zero correlation
  - (C) Positive correlation
  - (D) Independent correlation
  - (E) Dependent correlation
- In an experiment, Sydney is going to investigate how alcohol affects 9. aggression. The number of alcoholic drinks the subject has is called:
  - (A) Controlled variable
  - (B) Independent variable
  - (C) Dependent variable
  - (D) Experimental variable
  - (E) Positive variable
- If a researcher is trying to establish a causal relationship between eating breakfast and work performance, the researcher should use which of the following methods of research?
  - (A) Case study
  - (B) Correlational research
  - (C) Experimental research
  - (D) Survey
  - (E) Statistics