## Chapter 2 - Research Methods Study Guide - Complete this for extra credit for chapter 2

- 1. A theory is
  - A) a testable explanation for what has been observed.
  - B) an experimental supposition.
  - C) an unsupported opinion.
  - D) the opposite of a fact.
  - E) a statement that has not been supported with facts.
- 2. In an experiment, which variable is controlled by the experimenter and which is measured by the experimenter?
- 3. Why is it important to replicate studies?
- 4. Provide two examples of how a researcher can control for extraneous variables.
- 5. In an experiment, explain the difference between the population and the sample.
- 6. Explain why researchers have a tendency to prefer the experimental method over other types of research.
- 7. What is the big advantage of double-blind studies?
- 8. What is the purpose of Institutional Review Boards?
- 9. Why is it preferable to provide a Likert scale (0-5 from strongly agree to strongly disagree) to individuals taking a survey, rather than simply giving an option of agree or disagree?
- 10. What is an advantage to using the median when examining a set of data?
- 11. If there is a negative correlation between candy consumption and happiness, what would we expect to note in people who eat a lot of candy?
- 12. What does the correlation coefficient show? What is the range of possible values that it can take?

Name: Seat #: Per. #:

- 13. As it is nearly impossible to get a completely random sample from the population, how can we get the best representation while still being practical?
- 14. What does p<.05 mean?
- 15. A scientific study should begin with
  - A) a hypothesis.
  - B) data collection.
  - C) background reading.
  - D) risk/gain assessment.
  - E) a controlled test.
- 16. Which of the following could be an operational definition of "fear"?
  - A) an intense feeling of terror and dread when thinking about some threatening situation
  - B) moving away from a stimulus
  - C) a desire to avoid something
  - D) panic
  - E) moving toward a stimulus
- 17. In a experiment, the factor that is controlled by the experimenter is the
  - A) control group.
  - B) hypothesis.
  - C) dependent variable.
  - D) experimental group.
  - E) independent variable.
- 18. Which is the only form of research that can determine cause and effect?
  - A) a case study
  - B) an experimental study
  - C) a survey
  - D) a correlational study
  - E) a naturalistic observation

- Random assignment of subjects to different experimental conditions is a method for controlling differences between
  - A) heredity and environment.
  - B) the dependent variable and the independent variable.
  - C) controls and extraneous variables.
  - D) the experimental group and the control group.
  - E) empirical data and subjective data.
- 20. In which kind of research does the scientist have the most control over variables that might affect the outcome of the study?
  - A) an experimental study
  - B) a naturalistic observation
  - C) a cohort-sequential study
  - D) a case study
  - E) a correlational study
- 21. Which one of the following correlations shows the strongest relationship between two variables?
  - A) +0.4
  - B) -0.9
  - C) 0.05
  - D) +0.38
  - E) -0.7
- 22. Which one of the following is a good method for controlling expectancy bias?
  - A) joining a professional organization
  - B) doing a double-blind study
  - C) consulting the APA's "Ethical Principles of Psychologist and Code of Conduct"
  - D) performing a case study
  - E) clearly describing the intended results to the subjects
- 23. Which of the following correlation coefficients would a statistician know, at first glance, is a mistake?
  - A) -0.7
  - B) 0.0
  - C) -0.2
  - D) +1.1
  - E) +1.0

- 24. Which of the following is a measure of central tendency?
  - A) correlation
  - B) frequency distribution
  - C) mean
  - D) histogram
  - E) random sample
- 25. The simplest measure of variability is
  - A) mean.
  - B) range.
  - C) mode.
  - D) standard deviation.
  - E) median.
- 26. Most psychologists accept a difference between groups as "real," or significant, under which of the following conditions?
  - A) p < .3
  - B) p<.1
  - C) p<.05
  - D) p<.5
  - E) p=0