

### Directions and Sample Questions for Final Exam

Part I: Multiple Choice Questions (70) Answer the following multiple-choice questions on the supplied scantron form.

#### Correlation

To make a prediction for a new value of the predictor variable based on a correlation, you

- a. multiply the correlation coefficient by the new value and add the value of the y-intercept.
- b. divide the new value by the slope of the correlation line and add the value of the y-intercept.
- c. add the new value to the slope of the correlation line and divide by the value of the y-intercept.
- d. multiply the new value by the slope of the correlation line and add the value of the y-intercept.

#### Causation

Confounding variables are a threat to the

- a. external validity of a study.
- b. internal validity of a study.
- c. statistical significance of the result.
- d. ability to manipulate the independent variable.

#### Mechanism

The debate between holism and reductionism consist in all of the following except:

- a. holists claim that reductionists fail to consider the importance of higher-levels of organization.
- b. reductionists claim that holists are unable to properly explain how parts give rise to the behavior of the whole.
- c. reductionists claim that we should reduce the number of components in a mechanism.
- d. holists claims that the whole is more than the sum of its parts.

Part II. Essay Questions: Answer the following three questions in one to two paragraphs each (30 points):

Show what it would take (using a made-up example) to falsify the hypothesis that heavy objects, when released in the earth's atmosphere, fall faster than lighter objects. Be sure to make clear what the logical form of the argument is and identify any auxiliary hypotheses that are involved and how figure in the logic of the argument.