

Statistics in Psychology Final Exam Examples

- A. One sample Z test
- B. One sample t-test
- C. population correlation $\rho = 0$ (t-test)
- D. t-test for independent observations
- E. t-test for paired observations
- F. One-factor ANOVA (SRD)
- G. One-factor ANOVA (RMD)
- H. Two-factor ANOVA
- I. Chi-square goodness-of-fit test
- J. Chi-square test of association
- k. Multiple Regression

- ___ 1) A medical researcher wants to know if pet ownership increases the probability of living one year after a heart attack. A total of 200 coronary patients were asked if they owned a pet and were followed up one year after a heart attack to see if they were still alive.
- ___ 2) In order to help develop fuel efficiency standards, the government wants to know if a relationship exists between EPA gas mileage ratings and gross vehicle weight for 30 domestic cars.
- ___ 3) In an attempt to down size, Computer Viruses R Us Inc., needs to close down one of its two virus creating divisions. One division creates computer viruses that causes a computer to crash every time 10 pages of text are typed without saving the work. The other division creates viruses that completely destroys all the files on a disk for which there is no back-up copy. Only one virus can exist on any one computer. The company wishes to retain the division which creates viruses deemed by unsuspecting consumers to be the most frustrating as measured by the amount of time required to reconstruct the lost work.
- ___ 4) A researcher wants to know if smokers or non smokers tend to have higher rated (10 point scale) satisfaction with their personal income.
- ___ 5) A group of individuals were given the California "F" Test Scale which yields a score between 0 and 100 denoting the level of authoritarianism of the individuals; that is, each person received a score which purports to indicate his level of authoritarianism. These individuals were also classified according to their marital status and it was found that some of the individuals were divorced and presently unmarried, some had never married, and some were presently married. Is the degree of authoritarianism related to marital status?
- ___ 6) A memory researcher is interested in how atypical actions in an event (e.g., the cash register falling on the floor while your in line at the grocery store) are remembered over time. 50 people participate in a grocery store event and are asked to recall everything that happened immediately afterwards, 1 month later and 6 months later. She records the number of atypical actions recalled each time. Does the recall of atypical information decline over time?
- ___ 7) A statistics examination was composed of two parts: (1) computation and (2) interpretation. Did the statistics students score significantly higher on part A than on part B?
- ___ 8) A sample of stores was selected and divided randomly into three groups. Group I initiated the policy of giving trading stamps, Group II initiated the lottery-type card punching policy, and Group III initiated neither. The stores were also classified as being located in a community of low, medium, or high economic level. After a period of two months, the stores reported their increase in sales over the preceding two months. Is there a significant difference between the groups in terms of sales over the period?
- ___ 9) An undergraduate psychology major wants to know if there is a relationship between college major (Science versus Nonscience) and whether they believe in UFOs.
- ___ 10) A random sample of 3rd grade children were placed in a special program to improve their reading ability. After a 10 week intensive program, do they read significantly better than average 3rd grade children, that is, as compared to the national norms?