

EPRS853  
Sample Items for Exam 2

1. Suppose a 95% confidence interval is  $[-5 \# \mu_x \# +2]$ . If we test  $H_0 : \mu_x = 0$  with a two-tailed test, our decision about  $H_0$ 
  - a. is uncertain.
  - b. should be to reject  $H_0$ .
  - c. should be to accept  $H_0$ .
  - d. cannot be determined without further information.
  
2. If some fact of an experiment results in a smaller standard error of the difference between two means than otherwise, this is
  - a. undesirable, because it will make it less likely to claim a difference when one exists.
  - b. undesirable, because it makes it more likely to claim no difference when there is a difference.
  - c. desirable, because it makes it more likely to claim a difference when one exists.
  - d. desirable, because it makes it less likely to claim a difference when there is none.
  
3. When samples are dependent, this affects the
  - a. choice of hypothesis.
  - b. choice of alternative hypothesis.
  - c. mean of the sampling distribution.
  - d. standard deviation of the sampling distribution.
  
4. If the outcome of a test is significant at the .05 level, it
  - a. will be significant at the .01 level.
  - b. will not be significant at the .01 level.
  - c. may be significant at the .01 level.
  - d. will probably not be significant at the .01 level.
  
5. Suppose you run an independent t-test on a computer and you obtain the p-value of .0264. Assuming you use a two-tailed test, which of the following statements is correct?
  - a. It is significant at  $\alpha = .01$ .
  - b.  $p < .05$
  - c.  $\alpha < .05$
  - d. You failed to reject the null hypothesis at  $\alpha = .05$ .