QUIZ 2 - SOLUTIONS

1. A study to see whether birds remember color was done by putting birdseed on a piece of red cloth and letting birds eat the seed. Later, empty pieces of cloth of varying colors (red, purple, green) were displayed. The birds headed for the red cloth. The researchers concluded that birds remember color. Explain why the color of the cloth could be considered a confounding variable.

   Confounding – the birds may always prefer red. the experiment should be repeated using other colors with the seeds.

2. Researchers have found that women who use oral contraceptives are at higher risk of stroke, and that the risk is substantially higher if a woman smokes. Explain why smoking is an interaction variable.

   Smoking changes the risk of stroke for the group that smokes.

3. Give two reasons why a case-control study would be preferable to an experiment or prospective study for studying the relationship between high voltage power lines and a rare form of childhood leukemia.

   Ethical – you do not want to endanger a child.

   time and cost – you may have to wait a long time to get enough cancer cases in a prospective study if the diseaseis rare.