STATISTICS WORKSHEET-8

1. b
2. b
3. d
4. b
5. a
6. d
7. b
8. a
9. a
10. c
11. a
12. c

13.

ANOVA in SPSS, is used for examining the differences in the mean values of the dependent variable associated with the effect of the controlled independent variables, after taking into account the influence of the uncontrolled independent variables.

14.

To use the ANOVA test we made the following assumptions: 1) Each group sample is drawn from a normally distributed population, 2) All populations have a common variance, 3) All samples are drawn independently of each other, 4) Within each sample, the observations are sampled randomly and independently of each other, 5) Factor effects are additive.

15.

A one-way ANOVA is primarily designed to enable the equality testing between three or more means. A two-way ANOVA is designed to assess the interrelationship of two independent variables on a dependent variable. A one-way ANOVA only involves one factor or independent variable, whereas there are two independent variables in a two-way ANOVA. In a one-way ANOVA, the one factor or independent variable analyzed has three or more categorical groups. A two-way ANOVA instead compares multiple groups of two factors. One-way ANOVA need to satisfy only two principles of design of experiments, i.e. replication and randomization. As opposed to Two-way ANOVA, which meets all three principles of design of experiments which are replication, randomization, and local control.