Assignment-04

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment. Due on 2019-02-27, 23:59 IST.

1) Which of the following statement is TRUE? 1 point

I. Bartlett's test is sensitive to departures from normality. That is, if your samples come from non-normal distributions, then Bartlett's test may simply be testing for non-normality.
II. Dunnett's Test compares variance from several experimental groups against a control group variance to see if there is a difference.
III. Tukey's test compares the means of every treatment to the means of every other treatment; that is, it applies simultaneously to the set of all pairwise comparisons $\mu_i - \mu_j$ and identifies any difference between two means that is greater than the expected standard error.

- I and II
- I and III
- II and III
- All the statements are TRUE

No, the answer is incorrect.
Score: 0 Accepted Answers: I and III

2) You have carried out a Kruskal-Wallis test. There are significant differences between the three groups you are testing. How might you conduct your pairwise comparisons? 1 point

- Use the Wilcoxon test.
- Use a t-test.
- Use the Mann Whitney test.
- None of the above. Post hoc analyses cannot be carried out with non-parametric data.

No, the answer is incorrect.
interaction effect of the independent variables and their effect on the dependent variable.  
the effect of each independent variable on the dependent variable.  
interaction of the independent variables.

No, the answer is incorrect.
Score: 0
Accepted Answers:
the effect of each independent variable on the dependent variable.

4) To find out whether noise affects the capability to solve the assignment of Quality management, one group solve the assignment in a silent room and another group solve the assignment in a noisy room. The group solving problems in the silent room completes 22 problems in one hour and the group solving problems in the noisy room completes 15 problems in one hour. In this experiment, the independent variable is ____________ and the dependent variable is ____________.

- The difficulty of the problem; the noise level in the room  
- The noise level in the room; the difficulty of the problem  
- The noise level in the room; the number of problems solved  
- The number of problems solved; the noise level in the room

No, the answer is incorrect.
Score: 0
Accepted Answers:
The noise level in the room; the number of problems solved

5) If an interaction is significant, _______.

- Tukey HSD tests of marginal means should be conducted  
- main effects are unimportant  
- Tukey HSD tests should not be used  
- a t-test should be conducted

No, the answer is incorrect.
Score: 0
Accepted Answers:
Tukey HSD tests should not be used

6) Under what circumstances would you use a non-parametric test?

- When you do not really understand a parametric test.  
- When you think your sample size is too big.  
- In a pilot study.  
- When your data does not meet the assumptions for a parametric test.

No, the answer is incorrect.
Score: 0
Accepted Answers:
When your data does not meet the assumptions for a parametric test.

7) Factorial designs may be classified as all of the following EXCEPT _______.

- correlations  
- between-subjects designs  
- within-subjects designs  
- mixed designs

No, the answer is incorrect.
8) An ANOVA procedure is applied to data obtained from 5 samples, where each sample contains 9 observations. The degrees of freedom for the critical value of F are

- 5 numerator and 9 denominator degrees of freedom
- 4 numerator and 8 denominator degrees of freedom
- 45 degrees of freedom
- 4 numerator and 40 denominator degrees of freedom

No, the answer is incorrect.

Score: 0

Accepted Answers:
- 4 numerator and 40 denominator degrees of freedom

9) Assuming no bias, the total variation in a response variable is due to error (unexplained variation) plus differences due to treatments (known variation). If known variation is large compared to unexplained variation, which of the following conclusions is the best?

- There is no evidence for a difference in response due to treatments.
- There is evidence for a difference in response due to treatments.
- There is significant evidence for a difference in response due to treatments.
- The treatments are not comparable.

No, the answer is incorrect.

Score: 0

Accepted Answers:
- There is significant evidence for a difference in response due to treatments.

10) In the statistical model on which the one–way ANOVA is predicated, it is assumed that

- in the population, there is homogeneity of variance across treatment groups.
- there is always some basis for pairing the scores in any two groups.
- participants under different conditions are tested by different experimenters.
- in the population, there is homogeneity of covariance or sphericity.

No, the answer is incorrect.

Score: 0

Accepted Answers:
- in the population, there is homogeneity of variance across treatment groups.