Assignment-07

The due date for submitting this assignment has passed. As per our records you have not submitted this assignment. Due on 2019-03-20, 23:59 IST.

1) A three-way interaction is said to occur when:

- All three possible two-way interactions, plus main effects of all three factors, are present in the data.
- There are simple main effects of each factor at every level of either of the other two factors.
- The simple interactions between two factors are not homogeneous across all levels of the third factor.
- All three possible two-way interactions are present in the data.

No, the answer is incorrect.
Score: 0
Accepted Answers:
The simple interactions between two factors are not homogeneous across all levels of the third factor.

2) In a 3 x 3 factorial design, how many conditions are there in the experiment?

- 2
- 3
- 6
- 9

No, the answer is incorrect.
Score: 0
Accepted Answers:
9

3) Dr. AB conducted a 2 x 2 x 4 factorial design. This design will yield information about the main effect of ________ independent variables.

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4) A researcher is conducting a 3 x 2 factorial experiment. In variable 1 participant are randomly assigned to one of 3 conditions. In variable 2 participants respond to both levels of the independent variable. Which of the following best describes this study?

- it is an independent groups design
- it is a repeated measures group design
- it is a mixed factorial design
- it is a simple main effect design

No, the answer is incorrect.
Score: 0
Accepted Answers:
- it is a mixed factorial design

5) Dr. AB is conducting a 2 x 3 factorial experiment. He is interested in the impact of college major and study method on exam performance. He found that study method effected exam performance regardless of the participants' major. Which of the following is true?

- Dr. AB found a main effect for study method.
- Dr. AB found a main effect for college major.
- Dr. AB found a significant interaction between college major and study method.
- There is not enough information provided to answer this question.

No, the answer is incorrect.
Score: 0
Accepted Answers:
- Dr. AB found a main effect for study method.

6) Which of the following is true of between-subjects multi-level experiments?

- Participants provide data for just one treatment.
- Participants are part of matched sets where one participant provides data for one treatment condition.
- Participants contribute data to every treatment condition.
- Participants contribute data for at least one dependent measure.

No, the answer is incorrect.
Score: 0
Accepted Answers:
- Participants provide data for just one treatment.
8) If a researcher planned to have 20 participants in each condition of a 2 x 3 independent groups factorial design, how many participants would be needed for this experiment?

- 40
- 60
- 80
- 120

No, the answer is incorrect.
Score: 0

Accepted Answers:
120

9) An investigator randomly assigns 30 college students into three equal size study groups (early morning, afternoon, late-night) to determine if the period of the day at which people study has an effect on their retention. The students live in a controlled environment for one week; on the third day of the experimental treatment is administered (study of predetermined material). On the seventh day the investigator tests for retention. In computing his ANOVA table, he sees that his MS within groups is larger than his MS between groups. What does this result indicate?

- An error in the calculations was made.
- There was more than the expected amount of variability between groups.
- There was more variability between subjects within the same group than there was between groups.
- There should have been additional controls in the experiment.

No, the answer is incorrect.
Score: 0

Accepted Answers:
There was more variability between subjects within the same group than there was between groups.

10) A single-factor linear ANOVA model is represented as \( y_{ij} = \mu + \tau_i + \epsilon_{ij} \), where, \( \mu \) is overall mean, \( \tau_i \) is the treatment effect and \( \epsilon_{ij} \) is experimental error. Which one is the assumption of the model?

- \( \mu \) is constant
- \( \tau_i \) is normally distributed
- \( \epsilon_{ij} \) is normally distributed
- All are the assumptions of the model

No, the answer is incorrect.
Score: 0

Accepted Answers:
\( \epsilon_{ij} \) is normally distributed