FINAL EXAM - Research & biostatics

SEMSTER 4 - 2024/2025 - 12/7/2025 - 10:00am to 11:00am

Written

1. Enumerate 2 disadvantages of a cross-sectional study?
2. Enumerate 2 disadvantages of a cohort study?
3. Define control in a case-control study?
4. Define double-blind in RCT (Randomized Controlled Trial)?
5. What is the type of descriptive tabular presentation for qualitative data?
6. Enumerate 2 requirements of screening based on the disease?
7. Enumerate 2 measures of dispersion?
8. Define stillbirth and write its equation?

MCQ

1.   Case (a study linking exposure and outcome in France) is ?
A) Correlation study

2. If Mean = 10, SD = 10, then the value 12 is ?
A) 1 SD above the mean

3. Case (If the p-value = 0.01) , this means?
A) 1% probability that the observed difference occurred by chance.

4. A study on a rare neurological disease to find multiple risk factors, matched ratio can be calculated?
A) Odds Ratio

5. A village was selected, and households were randomly numbered. One house was selected, and everyone inside participated. This is ?
A) Cluster sampling

6. For highly skewed data, the best measure of central tendency is?
A) Median

7. Which of the following best defines the Positive Predictive Value (PPV)?
A) Proportion of individuals with a positive test result who are correctly diagnosed with the disease.

8. Crude death rate means?
A) Number of deaths occurring in a given population

9. True negatives who are disease-free are measured by?
A) Specificity
10. The test that helps measure differences between means?
A) t-test

11. Researchers conducted a study on lab rats. This is which phase?
A) Phase 0 (Pre-clinical)

12. A study gave one group 5 mg oral drug and the other 0.5 mg minoxidil to assess hair loss in females. This is which type of study ?
A) Experimental study

13. Cause-specific death rate means?
A) Number of deaths due to a specific cause in a given population

14. 85% of people exposed to a risk factor developed the disease. This indicates?
A) Incidence among exposed (Ie)

15. During the conducting phase of a research study, which of the following activities is typically performed?
A) Process the data

16. In a study of mothers with LBW babies, some were asked if they smoked during pregnancy. Mothers who smoked were more likely to remember and report it than those who didn't. This is an example of?
 A) Recall bias (Information bias)