



Biostatistics

Archive

FAINAL EXAM

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1-(N-1) is known as ?

- A - Test of significance
- B - CV
- c- sum of square
- d- Range
- E- degree of freedom

Answer: E- degree of freedom

2-The importance of using a random sample, including All the following except?

- A- to give everyone in the population the same probability.
- B- to eliminate selection bias of selection
- c- To make Data representation to the population.
- D- To minimize sample size
- e- to have suitable sample for significance result.

Answer: D- To minimize sample size

3-One of the following is correct decision regarding hypothesis:

- A- accept null hypothesis while it is true
- B. Reject the null hypothesis when it is true.
- C. Accept the alternative hypothesis when the p-value is greater than 0.05.
- D. Reject the alternative hypothesis when the p-value is less than 0.05.
- E. Always accept the null hypothesis when the sample size is large.

Answer: A- accept null hypothesis while it is true

4-One of the following is not correct about paired t-test:

- A. Independence of the samples.
- B. Assumes normality of the differences between paired observations.
- C. Used for comparing means of two related groups.
- D. Requires equal variances in the two groups being compared.
- E. Assumes that the observations are paired or matched.

Answer: A. Independence of the samples

5-Regarding Continuous variable, which of the following is not true:

- A. Using chi-square for testing hypotheses.
- B. Can be measured on a scale with meaningful distances between values.
- C. Allows for calculations of means and standard deviations.
- D. Can be analyzed using parametric tests like t-tests and ANOVA.
- E. Typically includes variables like height, weight, and temperature.

Answer: A. Using chi-square for testing hypotheses.

6- In two tailed t- test at alpha = 0.01 and total subjects = 25. The critical t value is:

- A. 2.787
- B. 2.492
- C. 2.576
- D. 2.819
- E. 2.658

Answer: D. 2.819

7-To cover 99% of population under the NDC we have to?

- A. Use a z-score of ± 1.96
- B. Use a z-score of ± 2.33
- C. Use a z-score of ± 3.00
- D. Use a z-score of ± 1.28
- E. Use a z-score of ± 2.58

Answer: E. Use a z-score of ± 2.58

8-The distance between one standard deviation in both side :

- A- 68%
- B- 99%
- C- 95%
- D- 34%

Answer: A- 68%

9-There is 13 babies if 6 babies are above 2.5 kg and 6 bellow 2.5 kg, so 2.5 is :

- A- Median
- B- Mode
- C- S.D
- D- S.E

ANSWER: A- Median

10-The measurement that affect by extremes and skewness is:

- A- Mode
- B- Median
- C- Mean
- D- Mean and mode
- E- Mean and median

Answer: C- Mean

11-What is the type 2 error :

- A. Accept the null hypothesis while it is false.
- B. Reject the null hypothesis while it is true.
- C. Accept the alternative hypothesis while it is false.
- D. Reject the alternative hypothesis while it is false.
- E. Fail to detect an effect that is actually present.

Answer: A. Accept the null hypothesis while it is false

12-When alpha is 0.01 ...it is considered statically not significant when :

- A. p {value} = 0.005
- B. p {value} = 0.009
- C. p {value} = 0.007
- D. p {value} = 0.013

Answer: D. p {value} = 0.013

13-All true about p value except?

- A. Probability of observing the data given that the null hypothesis is true.
- B. A measure of the strength of evidence against the null hypothesis.
- C. Can be used to determine statistical significance by comparing it to a significance level (α).
- D. Provides the probability of a Type I error occurring.
- E. Does not measure the probability of the null hypothesis being true.

Answer: D. Provides the probability of a Type I error occurring.