NAME: EHIGHAWAGUAN OMOLEFE

DEPARTMENT: PHYSIOLOGY

MATRIC NUMBER: 17/MHS01/104

COURSE: DEMOGRAPHY AND BIOSTATISTIC

COURSE CODE: STA 312

ASSIGNMENT

Questions

1. What do you understand by hypothesis testing

2. Differentiate between the classical and the p-value approach for hypothesis testing.

3. What is the importance of hypothesis testing in Research

ANSWER

1. Hypothesis testing is an analysis test done based on an assumption regarding a population parameter. It’s also used to assess the plausibility of a hypothesis by using sample data which may come from a large population or from data generating process.

|  |  |
| --- | --- |
| Classical approach to hypothesis testing | P- value approach to hypothesis testing |
| This approach computes a test statistic from the empirical data and then | The p value is the evidence against null hypothesis |
| In classical approach for hypothesis testing if the test statistic is larger than the critical value, then the null hypothesis is rejected. | The smaller the p value the stronger the evidence that the null hypothesis should be rejected |
| This approach is used in comparison with critical value | This approach is used to support or reject null hypothesis |

1. The importance of hypothesis is majorly to assist clinicians, physicians, administrators, scientists, researchers etc. In making decisions which usually depends on statistical analysis/decisions.