1. What are the steps involved in typical statistical Analysis Procedure?
2. Name any method to find Outliers in data?
3. Define Normality Check?
4. Different methods to check normality of the data?
5. How do you interpret the p-Value in hypothesis tests?

P<0.05 reject null hypothesis

p>0.05 fail to reject null hypothesis

1. Define Sensitivity
2. Define Specificity
3. Define Type-I Errors
4. Define Type-II Errors
5. How do you compare two groups.

T Test

1. How do you compare three or more groups.

ANOVA

1. How do you compare relationship between categorical data.

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1. What is One-Way ANOVA?
2. What is two-Way ANOVA?

Compare mean difference between two groups which have two indepdent variable

1. What are post-hoc tests?
2. What are the assumptions of one-way ANOVA?
3. Define Correlation Coefficient
4. What are the insights given by the R2 value.
5. General Linear Regression Model, Coefficient of Determination, Linear Regression Analysis

with Python.

**5 Marks Questions:**

Write the equations for Sensitivity, Specifity, Positive Predictive Value (PPV), Negative Predictive Value (NPV), Power, Type-I errors and Type- II errors and measure them based on the following data:

|  |  |  |
| --- | --- | --- |
|  | **Actual Positive** | **Actual Negative** |
| **Predicted Positive** | TP=25 | FP=175 |
| **Predicted Negative** | FN=10 | TN=2000 |

**10 Marks Questions:**

1. Write in detail about normality check.
2. Write in detail about Comparing the means of different groups.
3. What is linear regression. Write to python code to apply linear regression on the data.