PARSHWANATH CHARITABLE TRUST'S
A.P. SHAH INSTITUTE OF TECHNOLOGY
Department of Computer Science and Engineering
Data Science

CSE DATA SCIENCE

Semester ⇧   Subject **Statistics for AIDS**   Academic Year 2023 2024.

If one were not Interested not in conversion, but in revenue per pageview, the results of the above table might look like this in typical default software output.

Revenue/page-view with price A = 3.87, SD = 51.10
Revenue/page-view with price B = 4.11, SD = 62.98

SD refers to the standard deviation of the values within each group.

HYPOTHESIS TESTING:

Hypothesis testing is a statistical method used to determine if there is enough evidence in a sample data to draw conclusions about a population. It involves formulating two competing hypothesis,

* The null hypothesis (Ho)
* The Alternative hypothesis (H₁)

NULL HYPOTHESIS (Ho):

A null hypothesis is a statement in which there is no relation between two variables.

* Researchers try to reject or disprove it.

* The testing process is always Indirect and Implicit.

* Null hypothesis is rejected if the p-value is less than the alpha-value; otherwise it is rejected.

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Semester : **1**   Subject **Statistics for AIDS**   Academic Year: 2023-2024

* It is denoted by H_0.

* The symbol used are $(=, \geq, \leq)$ Equality.

ALTERNATIVE HYPOTHESIS:

* An alternative hypothesis is a statement in which there is some statistical relationship between the two variables.

* Researchers always try to accept or prove it.

* The testing process is always direct and explicit

* An alternative hypothesis is accepted if the p-value is less than the alpha-value otherwise, it is rejected.

* It is denoted by H_1.

* The symbol used are Inequality $(!=, <, >)$.

Example:-

A researcher wants to know if the height of students at school differs from the national average of 5.5 feet. State null and alternate hypothesis.

Here, researchers are interested in determining whether the height of students is either less than or greater than the national average height.

Null Hypothesis $H_0 = 5.5$ feet, Alternate Hypothesis $\neq 5.5$ feet (H_1)