**FOR T.D.C PART- I (GEOGRAPHY HON’S)**

 **Paper – Geography (Practical)**

 **BY**

 **Dr. ALPNA JYOTI**

 **Deptt. of Geography, Marwari College, Darbhanga**

 **LNM University, Darbhanga**

**Q. -WHAT IS STAISTICS METHOD ?**

Introduction to Statistics Method :---

‘Statistic’ mean the numerical fact, that is the data, systematically collected, processed condensed and analysed to identified the problems and formulate polices to tackle them.

Statistics is the science concerned with developing and studying methods for collecting, analysing, interpreting and presenting empirical data. Statistics is a highly interdisciplinary field; research in statistics finds applicability in virtually all scientific fields and research questions in the various scientific fields motivate the development of new statistical methods and theory. In developing methods and studying the theory that underlies the methods statisticians draw on a variety of mathematical and computational tools.

Two fundamental ideas in the field of statistics are uncertainty and variation. There are many situations that we encounter in science (or more generally in life) in which the outcome is uncertain. In some cases the uncertainty is because the outcome in question is not determined yet (e.g., we may not know whether it will rain tomorrow) while in other cases the uncertainty is because although the outcome has been determined already we are not aware of it (e.g., we may not know whether we passed a particular exam).

Probability is a mathematical language used to discuss uncertain events and probability plays a key role in statistics. Any measurement or data collection effort is subject to a number of sources of variation. By this we mean that if the same measurement were repeated, then the answer would likely change. Statisticians attempt to understand and control (where possible) the sources of variation in any situation.

We encourage you to continue exploring our website to learn more about statistics, our academic programs, our students and faculty, as well as the cutting-edge research we are doing in the field.

The raw data is classified in various ways depending on the purpose. When the data is grouped according to the time such as years, quarters, months weeks etc, then it is called temporal classification.

EXAMPLE :--

 Population of India (in crores)

|  |  |
| --- | --- |
|  year | Population (crores) |
| 1961 | 43.8 |
| 1971 | 54.6 |
| 1981 | 68.4 |
| 1991 | 81.8 |
| 2001 | 102.7 |
| 2011 | 130.0 |

When the data is classified with reference to the geographical location such as countries , states, cities or mountain plains and other physical feature, it is called spatial classification.

FREQUENCY DISTRIBUTION

Data is a collection of any number of related observations. A collection of data is called a data set. Statistical data may consist of a very large number of observations. The larger the number of observations, the greater the need to present the data in a summarized form that may omit some details, but reveals the general nature of a mass of data.

Frequency distribution allows for the compression of data into a table. The table organizes the data into classes or groups of values describing characteristics of the data. For example, students' grade distribution is one characteristic of a graduate class.

A frequency distribution shows the number of observations from the data set that fall into each category describing this characteristic. The relevant categories are defined by the user based on what he or she is trying to accomplish; in the case of grades, the categories might be each letter grade (A, B, C, etc.), pass/fail/incomplete, or grade percentage ranges. If you can determine the frequency with which values occur in each category, you can construct a frequency distribution. A relative frequency distribution presents frequencies in terms of fractions or percentages. The sum of all relative frequency distributions equals 1.00 or 100 percent.

Table 1 illustrates both a frequency distribution and a relative frequency distribution. The frequency distribution gives a break down of the number of



**Frequency Distribution for a Class of 25 M.B.A. Students**

| **Grade Scale** | **Student/Grade Frequency** | **Relative Frequency** |
| --- | --- | --- |
| **A** | **5** | **20%** |
| **B** | **12** | **48%** |
| **C** | **4** | **16%** |
| **D** | **2** | **8%** |
| **F** | **1** | **4%** |
| **I (Incomplete)** | **1** | **4%** |
| **TOTAL** | **25** | **100%** |

students in each grade category ranging from A to F, including "I" for incomplete. The relative frequency distribution takes that number and turns it into a percentage of the whole number.

The chart shows us that five out of twenty-five students, or 25 percent, received an A in the class. It is basically two different ways of analysing the same data. This is an example of one of the advantages of statistics. The same data can be analysed several different ways.

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