14.1 Introduction

Everyday we come across a wide variety of informations in the form of facts, numerical figures, tables, graphs, etc. These are provided by newspapers, televisions, magazines and other means of communication. These may relate to cricket batting or bowling averages, profits of a company, temperatures of cities, expenditures in various sectors of a five year plan, polling results, and so on. These facts or figures, which are numerical or otherwise, collected with a definite purpose are called *data*. Data is the plural form of the Latin word *datum*. Of course, the word 'data' is not new for you. You have studied about data and data handling in earlier classes.

Our world is becoming more and more information oriented. Every part of our lives utilises data in one form or the other. So, it becomes essential for us to know how to extract meaningful information from such data. This extraction of meaningful information is studied in a branch of mathematics called *Statistics*.

The word 'statistics' appears to have been derived from the Latin word 'status' meaning 'a (political) state'. In its origin, statistics was simply the collection of data on different aspects of the life of people, useful to the State. Over the period of time, however, its scope broadened and statistics began to concern itself not only with the collection and presentation of data but also with the interpretation and drawing of inferences from the data. Statistics deals with collection, organisation, analysis and interpretation of data. The word 'statistics' has different meanings in different contexts. Let us observe the following sentences:

1. May I have the latest copy of 'Educational Statistics of India'.

2. I like to study 'Statistics' because it is used in day-to-day life.

In the first sentence, statistics is used in a plural sense, meaning numerical data. These may include a number of educational institutions of India, literacy rates of various states, etc. In the second sentence, the word 'statistics' is used as a singular noun, meaning the subject which deals with the collection, presentation, analysis of data as well as drawing of meaningful conclusions from the data.

In this chapter, we shall briefly discuss all these aspects regarding data.