

and qualitative characters.

Illustration 1.1

The production of rubber in 1970 in a number of rubber-producing countries is as follows:

<u>Country</u>	<u>Production of Rubber ('000 tonnes)</u>
Indonesia	786
Thailand	269
India	75
Malaysia	1240
Others	170

Give a suitable diagrammatic representation of the above data.

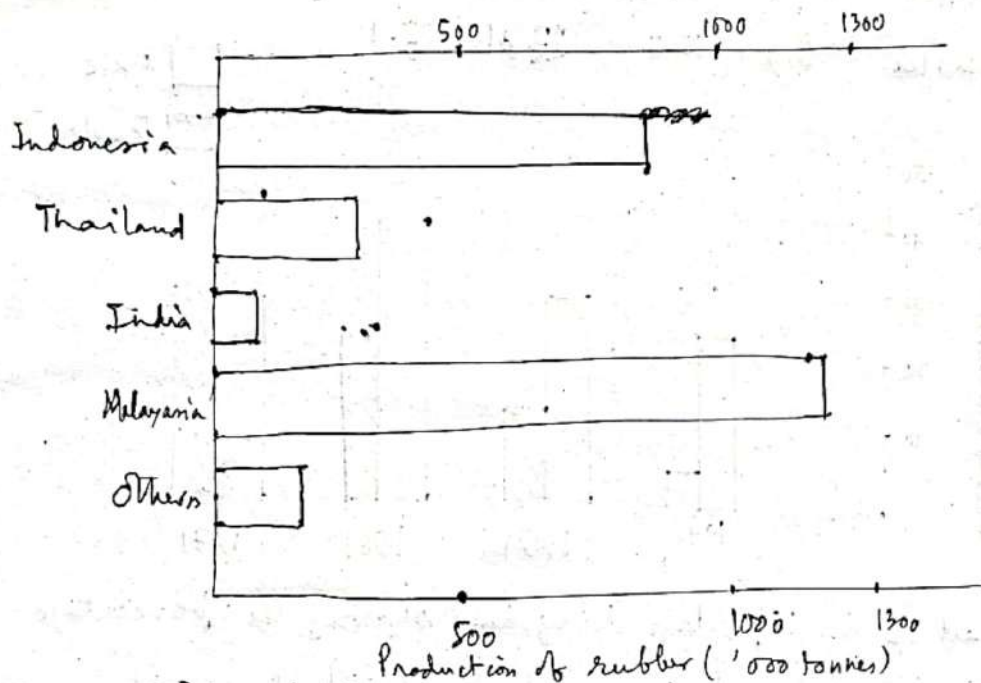


Chart 1.1 Bar diagram showing the production of rubber in 1970 in some countries.

Multiple bar diagrams is a variant of the bar diagram, which is used to compare two or more series of data on the same variable or for showing different components

of an item (such as rural and urban population of a state recorded in few censuses). In this diagram, several sets of bars are drawn so that bars for a period or a related phenomenon are put together and uniform gap is maintained between any two sets of bars.

Illustration 1.2

The percentage of literacy in West Bengal is shown below separately for males and females for 4 years

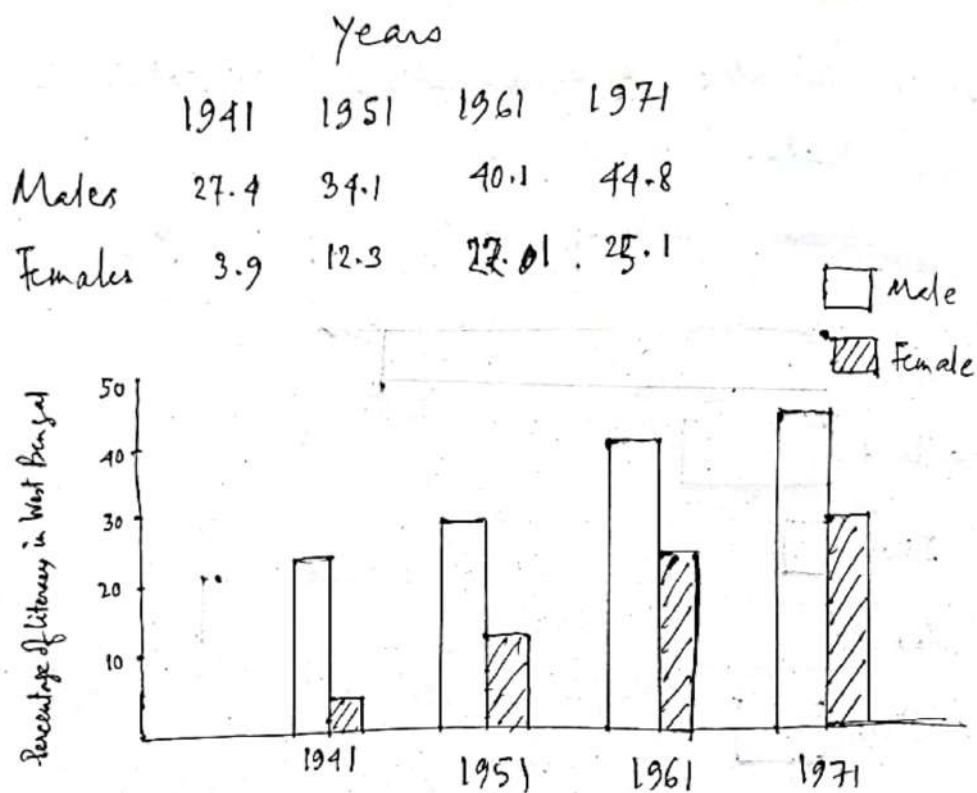


Chart 1.2 Multiple bar diagram showing the percentage of literacy in West Bengal for males and females for 4 years.

Component bar diagrams are used for comparing the magnitudes of different components of an item among themselves and also with the total.

Suppose we are given the population of a country, classified by sex, for several years. Then we draw several bars, as in the case of bar diagrams, to represent the total population in different years. Next, each bar is divided into two parts by a line drawn parallel to the base so that the heights of the parts are proportional to male and female populations of the corresponding period.

Divided Bar diagrams and Pie diagram: In some situations, the values of a variable are available for a number of components and comparison among different components of a situation among themselves ~~and also with the whole~~ or the relation between each part and the whole may be necessary. In this context, the proportions or percentages of various components are given more ~~importance~~ importance than the absolute values. So we have to think of the diagrammatic representation of the percentages of different categories. Divided bar diagram is an appropriate device for this purpose. Here a single bar of suitable length and width is taken and its area is considered as 100. The area of the bar is then divided into a number of parts, depending on the number of categories, with the help of the

lines drawn parallel to the base, so that the area of a part represents the percentage for the category concerned.

A pie diagram is another appropriate diagram used for exhibiting the relative sizes of the different parts of a whole. In this case, a circle is partitioned into several sectors by drawing angles at the centre, the area of each sector indicating the corresponding percentage. In fact, the area enclosed by the circle is regarded as 100. Since the total angle at the centre is 360° , the desired angle for some particular category will be 3.6 times the relative percentage. The diagram thus constructed is termed as a pie diagram or chart.

Illustration 1.3

Represent the following production cost of sugar in a certain week under different heads in a sugar factory by a pie chart.

Source	Production Cost (₹000 Rs)
Raw material	192.0
Labour	153.6
Direct production	57.6
Others	76.8