

VIII- Mathematics Assignment-Introduction to Graph.

Basic Points

In Statistics, firstly the data is collected from some source, such data is known as primary data. As soon as this work of collection of data is over, the investigator has to find a way to present the data in such a form which is meaningful i.e., easy to understand and gives its main features at a glance. So we arrange the data in the form of frequency distribution table. Now let us turn our attention to another representation of data i.e., the graphical representation. It is well said that one picture is better than a thousand words. In general, comparisons among the individual items are best shown by means of graphs. The representation then becomes easier

Cont-ly-2

to understand than the actual data. So the visual representation of the data is in the form of pictograph or bar graph. You can look at the bar graph and make deduction about the data. You can also get information based on these bar graphs. Different types of graphs represent different meaning, as

- (i) A Bar graph is used to show comparison among categories
- (ii) A pie chart (graph) is used to compare parts of a whole.
- (iii) A histogram is a bar graph that shows data in intervals
- (iv) A line graph displays data that changes continuously over periods of time.
- (v) A linear graph is a line graph which is a whole unbroken line

Cont Pg-3

While drawing the graph, following points to be kept in mind.

For Bar Graph

On x-axis, bars of uniform width are drawn with equal spacing between them depicting the variable.

on y-axis, the values of the variables and the heights of the bars that will be proportional to the values of the variable.

For Histogram It is a graphical representation of frequency distribution. It consists of a set of rectangles having their heights proportional to their class frequencies, for equal class intervals. There is no gap between two successive rectangles.

A Pie chart or a circle graph

A pie-graph is used to compare parts of a whole. The circle represents the whole and various central angles represent the parts corresponding to various data.

A line graph

In this, the graph is formed by joining the line segments (various) that is formed over the period of time

The Linear Graphs

As we know that in line graph, bits of line segments are joined continuously. Sometimes the graph may be a whole unbroken line. Such a graph is known as linear graph. It is always in the form of a straight line.
