

Experiment - 1

Page :

Date: / /

* Aim:- To determine mean & median for the given data.

* Experiment:- The following frequency distributions relates to the life of 400 light bulbs.
Find the mean and median of the following data:-

Life of light bulbs (in hrs)	frequency
600 - 699	85
700 - 799	77
800 - 899	124
900 - 999	78
1000 - 1099	36

* Theory & Formula:-

Mean:- Mean of a set of observations is the arithmetic average of the values.

$$\bar{x} = \frac{\sum f_i x_i}{\sum f_i} \quad \text{--- (1)}$$

Where x_i = mid value of class interval
 f_i = frequency

Median :- Median is the value that divides the whole data set into two equal parts.

$$M_d = l + \frac{\left(\frac{N}{2} - c\right)}{f} \times h \quad \text{--- (2)}$$

Where N = Total of the frequencies
 l = lower limit of the median class
 h = magnitude of the median class
 f = frequency of the median class
 c = cumulative frequency of preceding class

* Result :- Mean is 825.25 &
 Median is 830.145