Measure	Discrete series and ungrouped frequency distribution	Grouped frequency distribution
$Q_1$	size of $\frac{n+1}{4}$ th term	$l + \frac{\frac{N}{4} - CF}{f_m} \times h$
$Q_3$	size of $\frac{3(n+1)}{4}$ th term	$l + \frac{\frac{3N}{4} - CF}{f_m} \times h$
$D_1$	size of $\frac{n+1}{10}$ th term	$l + \frac{\frac{N}{10} - CF}{f_m} \times h$
$D_7$	size of $\frac{7(n+1)}{10}$ th term	$l + \frac{\frac{7N}{10} - CF}{f_m} \times h$
$P_1$	size of $\frac{n+1}{100}$ th term	$l + \frac{\frac{N}{100} - CF}{f_m} \times h$
$P_{47}$	size of $\frac{47(n+1)}{100}$ th term	$l + \frac{\frac{47N}{100} - CF}{f_m} \times h$

## **MODE**

$$Mode = l + \frac{f_1 - f_0}{2f_1 - f_0 - f_2} \times h$$

where,

l = Lower boundary of modal class

 $f_1 = Frequency of the modal class$ 

 $f_0 = Frequency \ of \ the \ class \ preceeding \ the \ modal \ class$ 

 $f_2$  = Frequency of the class succeeding the modal class

 $h = Width \ of \ the \ modal \ class$ 

## Relation between mean, median and mode

 $Mode = 3 \times (Median) - 2 \times (Mean).$