

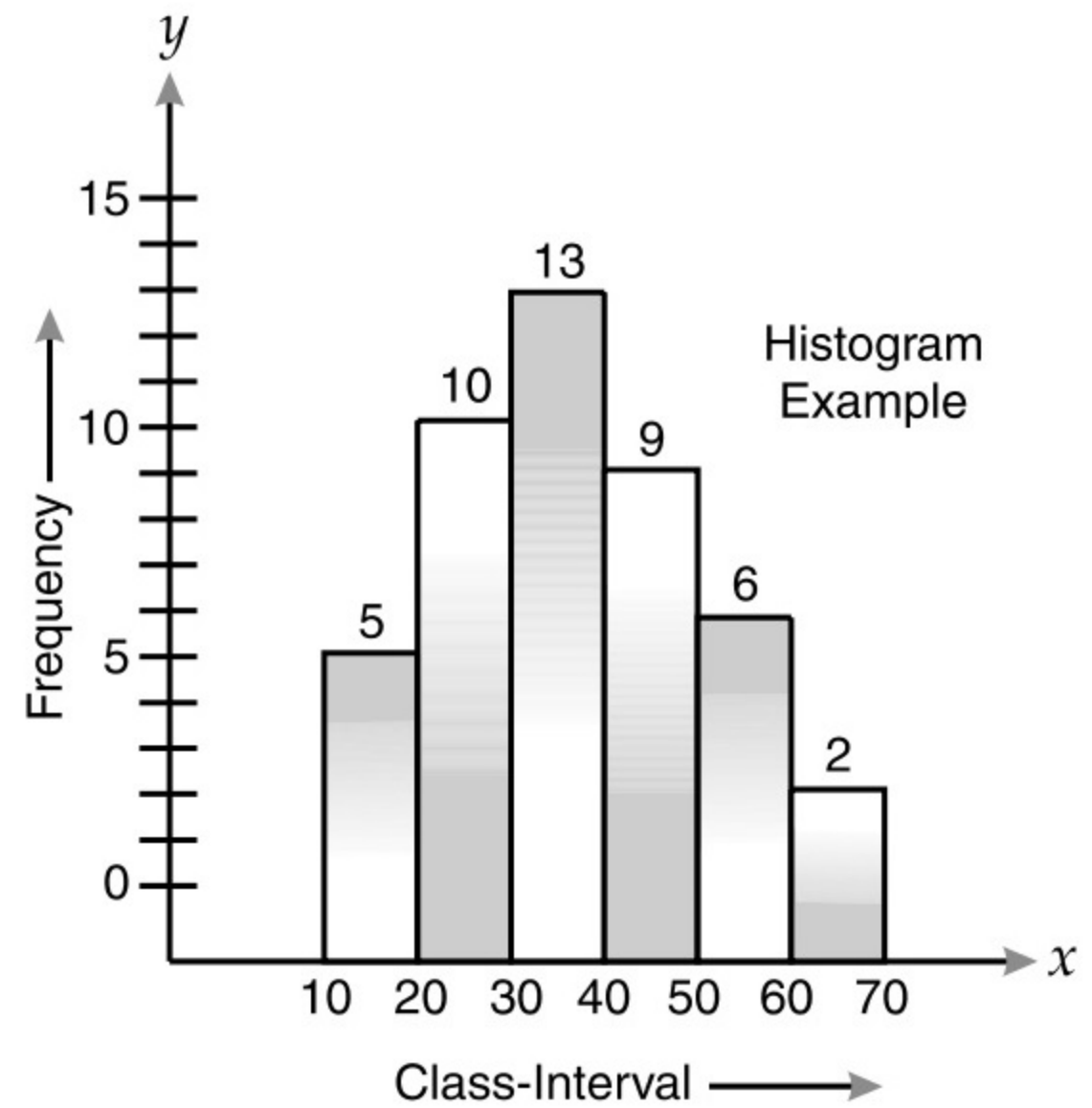
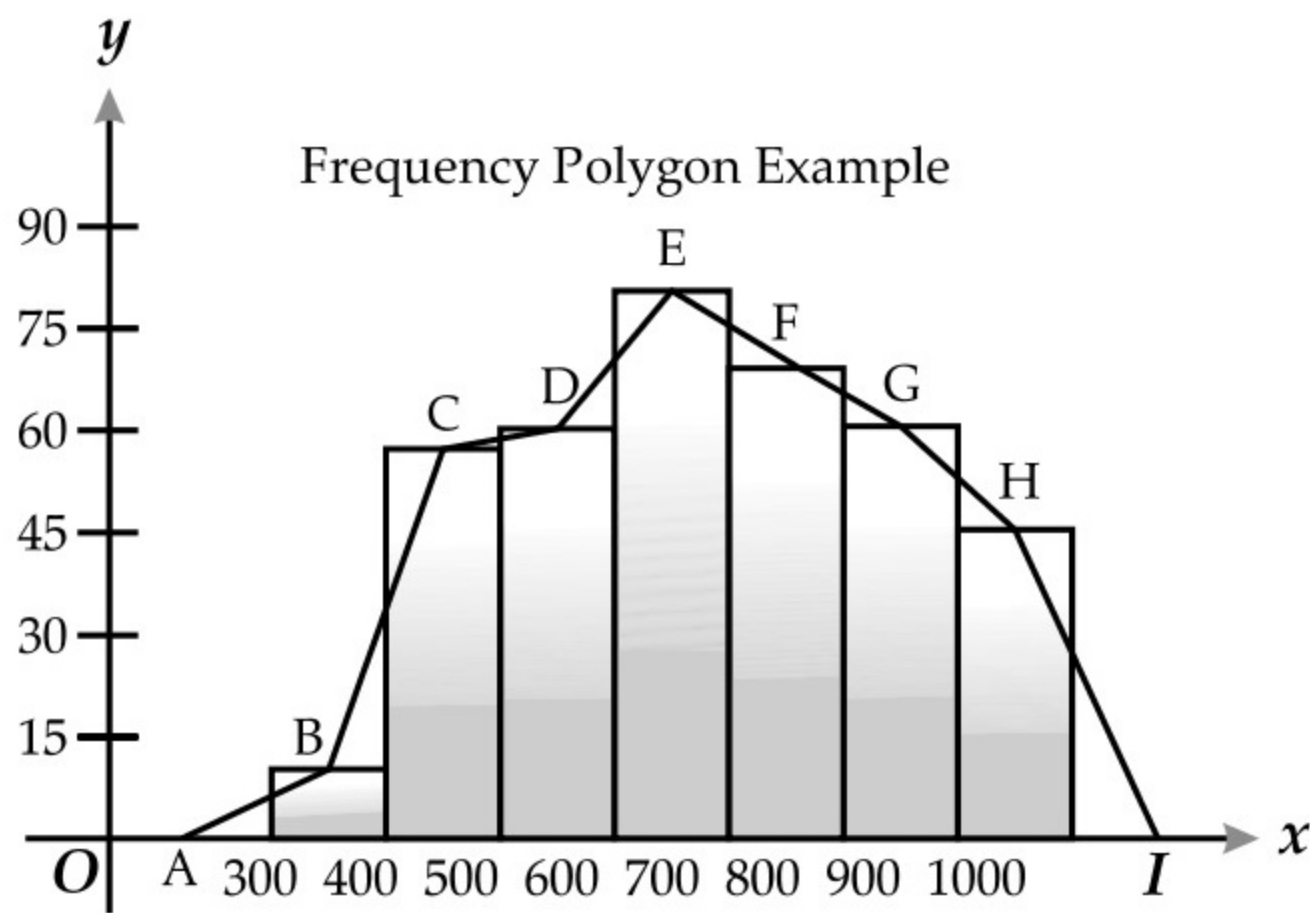
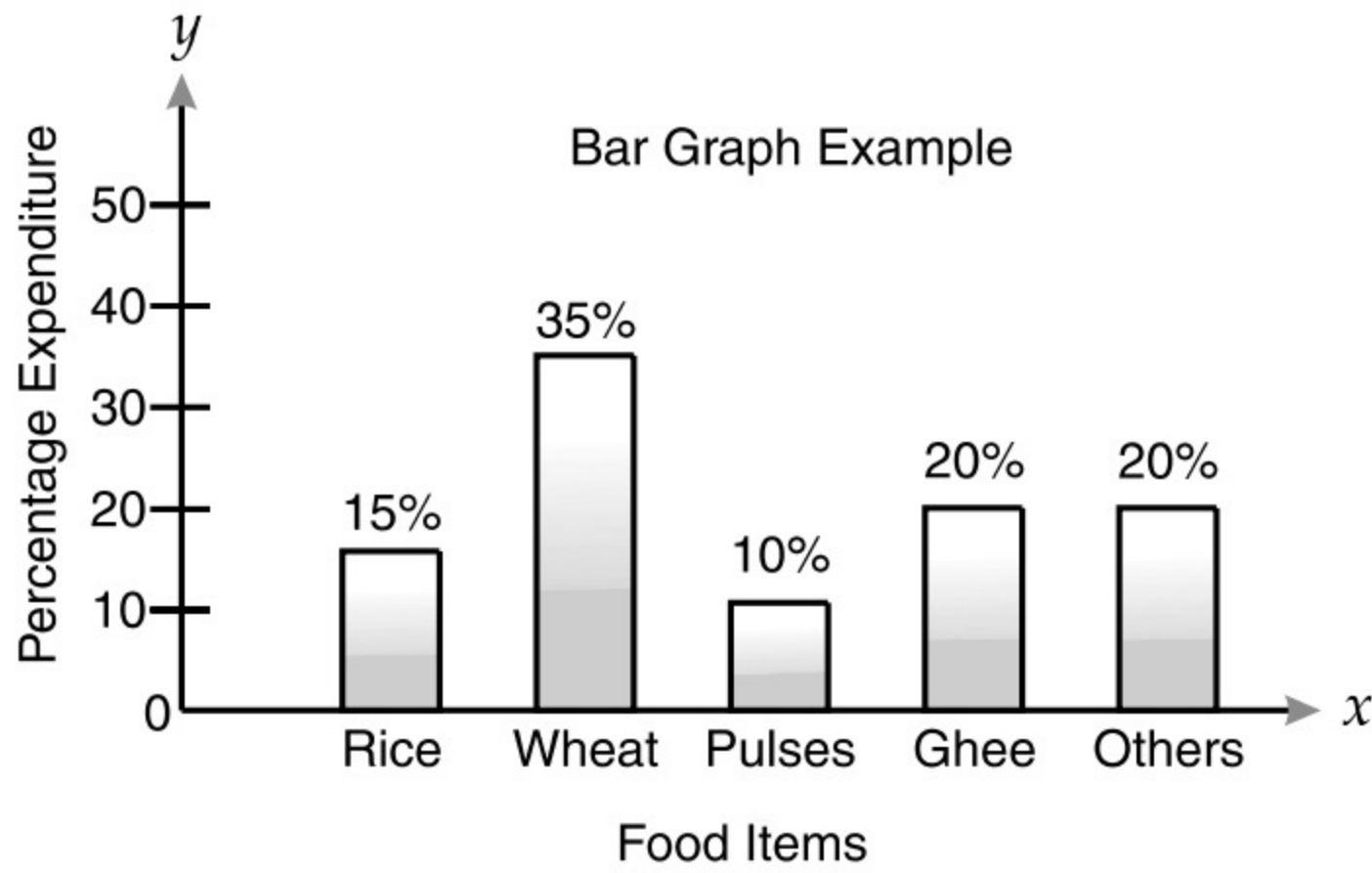
# CHAPTER 14 : Statistics

Data can be represented graphically in the following ways :

(a) Bar Graph

(b) Histogram

(c) Frequency polygon.



Class size = Upper limit – Lower Limit

$$\text{Mean } (\bar{x}) = \frac{1}{n} \sum_{i=1}^n x_i$$

$$\text{Mean } (\bar{x}) = \frac{\sum f_i x_i}{\sum f_i}$$

If the number of observations ( $n$ ) is odd, Median = value of  $\left(\frac{n+1}{2}\right)^{\text{th}}$  observation.

If  $n$  is even, Median = Mean of the value of the  $\left(\frac{n}{2}\right)^{\text{th}}$  and  $\left(\frac{n}{2}+1\right)^{\text{th}}$  observations.

$$\text{i.e., Median} = \frac{\text{value of } \left(\frac{n}{2}\right)^{\text{th}} \text{ observation} + \text{value of } \left(\frac{n}{2}+1\right)^{\text{th}} \text{ observation}}{2}$$

**Mode :** In a given set of data, the mode is statistical term that refers to the most frequently occurring number.

