

## 4.2 Uses Free Hand Method to Estimate the Trend.

### Methods of Evaluating Basic Trend.

The idea of measuring the trend is to estimate the average growth or decline. There are four methods of measuring the trend

- (i) Free hand method.
- (ii) Semi-Average Method.
- (iii) Least Square Method.
- (iv) Moving Average Method.

### Free Hand method.

Once a rough idea about the trend is to be derived quickly the trend line is drawn using the free hand method.

After the time series graph has been constructed, deriving a trend line so as for the points on it to fall on either side of the line as far as possible is known as free hand method.

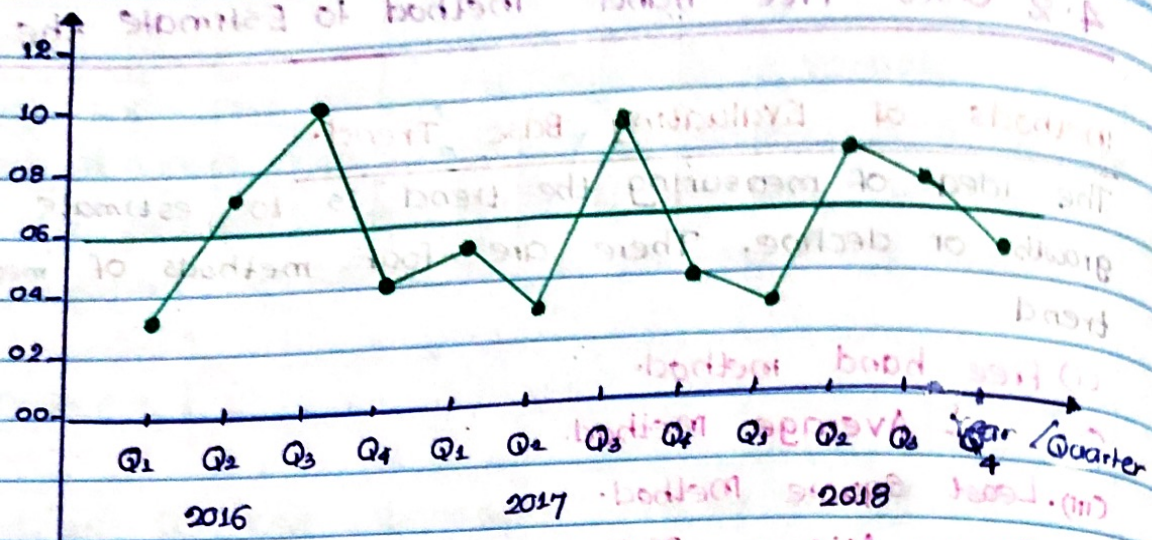
### Worked Example.

The number of units produced quarterly by a manufacturing firm is given below.

Year	2016				2017				2018			
	I	II	III	IV	I	II	III	IV	I	II	III	IV
No. of Units	03	07	10	04	05	03	09	04	03	08	07	05



4.2 Case Free Hand Method to Estimate Trend



Merits

- (i) Not to having calculations.
- (ii) Ability to have awareness about the trend quickly and conveniently.
- (iii) A specific skill not being necessary for construction of the line.

Demerits

- (i) Being a subjective method.
- (ii) The trend line derived not being identical.
- (iii) Possible predictions not being reliable.

Year	2016	2017	2018
Quarter I	0.3	0.55	0.38
Quarter II	0.7	0.35	0.9
Quarter III	1.0	1.0	0.8
Quarter IV	0.4	0.45	0.55