2nd class:

Statistics: Statistics are numerical facts of any department of inquiry placed in relation to each other.

Statistics is a branch of applied mathematics which is used to observe data.

Variable: Measurable quantity

Variable are mainly two types:

i) Qualitative variable: Measure with quality
   Example: Education, Occupation, Religion etc.
ii) Quantitative variable: Measure with quantity
   Example: Age, income, height, weight etc.

Quantitative variables are two types:

a) Discrete variable: contains only integral values
Example: No of students of MAT 201 DC section

b) Continuous variable: contains values within a certain range
Example: Age of students of MAT 201 DC section

$$19 \leq age \leq 21$$

Data: Data are numerical expression of individual elements.

Data are two types:

i) Primary data
ii) Secondary data

Primary data	Secondary data
Collected from original field	Collected from some published primary data

Trained person needed	Not needed
Expensive and time consuming	Not expensive
More reliable	Not reliable

Frequency and frequency distribution:

Age (class interval)	No. of employees(Frequency)
15-20	5
20-25	15
25-30	20
30-35	30

Calculating mid value and Cumulative frequency:

Age (class interval)	Mid value	No. of employees (Frequency)	Cumulative frequency
15(lower limit)-20(upper limit)	17.5	5	5
20-25	22.5	15	20
25-30	27.5	20	40
30-35	32.5	30	70

Frequency distribution:

i) Exclusive method

Age (class interval)	No. of employees (Frequency)
15-20(upper limit)	5
20(lower limit)-25	15
25-30	20
30-35	30

ii) Inclusive method

Age (class interval)	No. of employees (Frequency)
15-19(upper limit)	5
20(lower limit)-24	15
25-29	20
30-34	30

Next class: Measure of central tendency

Mean, median and mode