MARCH '2000 **t - test** THURSDAY 2

APPOINTMENTS

In case of smaller samples t-test is applied as a test of significance. It was designed by W. Gossett (1908) whose pen name was student. Hence this test is also called Student's 't' test. Lateron, this 't' test is modified by R. Fisher. The quantitative data is only calculated by the 't' test.

Criteria For application of 't' test.

WORK TO DO

(a) Random samples
(b) Data quantitative
(c) Variable normally distributed.
(d) Sample size less than 30.

It is of two types:

(a) Paired 't' test:

It is applied to paired data of independent observations from one sample only when each individual gives a pair of observations.

$$t = \frac{\bar{X}}{S.E.\sqrt{N}}$$

where $\bar{X}$ = difference between two means
S.E = standard error of difference.

PHONES

(b) Unpaired 't' test:-

APPOINTMENTS

3 FRIDAY MARCH '2000

WORK TO DO

(b) Unpaired 't' test.

The test is applied to sample drawn from two different populations to test, if the difference between the ~~real~~ real, or it can be due to sampling variability.

$$t = \frac{\bar{x}_1 - \bar{x}_2}{S.E.(\bar{x}_1 - \bar{x}_2)}$$

where $\bar{x}_1 - \bar{x}_2$ = difference between two means

S.E. = Standard error.