Practical No. -4-

Standard Length/Weight Relations and Condition Factor.

I- Length/Weight Relationship:

1. The data given below have been collected from measuring and weighting specimens of *Oreochromis niloticus* from the white Nile.
2. You are required to illustrate graphically the relationship between the SL and Wt by using the actual figures for obtaining a curve and by using the logarithms of these figures to obtain a linear graph.

The equation is:

$W = a L^b$ $\quad\quad$ $\text{Log } W = \text{Log } a + b \text{ Log } L$, where

W =weight

A + b = constants standing for slop and intercept.

3. Compare the following per sex.
4. The data are:

Females		Males	
Wt (gm)	**Length (cm)**	**Wt (gm)**	**Length (cm)**
97.5	13.7	115.8	16.9
100.5	13.5	225.4	18.5
148.5	16	240.5	18.5
150.5	15	747.4	20
158.5	16.5	878.2	28
252.5	18.5	912.6	26
291.5	18.5	1057.7	30
299.0	19.5	1155.5	29
309.5	19	1251.5	31
365.5	21.6		
370	21.5		
389.4	20.5		
557.3	24		
829.5	26		
855	28		
936	29		
1018.7	28		
1488.5	33		
1709.3	31		
1775.8	29		

5. Draw conclusions from your findings?

II- Condition Factor:

(Well-being Factor).

1. Apply the equation:

   $K = W/ L^3 \times 100$ Where,

   K=condition factor
   W=Weight of the individual
   L=length of the individual

   to the data given above.

2. Examine the results in each case and draw conclusions on the well being of each individual per sex.