

APPENDIX NO. 7

FORMULAE USED FOR STATISTICAL ANALYSIS

1. Mean = $\frac{\sum X}{N}$

N = Sample Size

$\sum X$ = Summation of Score

2. Standard Deviation

$$\sigma \text{ or S.D.} = \sqrt{\frac{\sum X^2}{N}}$$

X^2 = Square of score

3. $t = \frac{D}{\sigma D}$

D = Difference of mean in two test

σD = Standard error

4. $df = N - 1$

df = degrees of freedom.

5. Correlation Coefficient

$$r = \frac{\frac{\sum X'Y'}{N} - C_x C_y}{\sigma_x \sigma_y}$$

Where $C_x = \frac{\sum f x'}{N}$ $C_y = \frac{\sum f y'}{N}$

$$\sigma'_x = \sqrt{\frac{\sum f x'^2 - C_x^2}{N}} \quad \sigma'_y = \sqrt{\frac{\sum f y'^2 - C_y^2}{N}}$$

Where

$\sum X'Y'$ = Sum of cross products of variables X and Y