GLASSORY:

Multiple linear regression: If the linear regression model contains two more regressors then it is called multiple linear regression model.

Adjusted R^2 : The coefficient of determination R^2 adjusted for degrees of freedom is called adjusted R^2

BLUP : A linear unbiased predictor with minimum variance is best linear unbiased predictor(BLUP).

For the linear regression model satisfying the basic ideal conditions, the Best Linear Unbiased Predictor(BLUP) of Y_0 for specified value of X is obtained by replacing the regression coefficients with their best linear unbiased estimators(BLUE).

Confidence interval.: Let $X_1,\ldots X_n$ be a random sample from a p.d.f. $f(x,\Theta)$. Let $\Theta_0(x_1,\ldots x_n)$ and $\Theta_1(x_1,\ldots x_n)$ are two statistics such that $\Theta_0 < \Theta_1$ and $P(\Theta_0 < \Theta < \Theta_1) = \gamma$.

Then $(\Theta_0 \quad \Theta_1)$ is called a 100 γ percent confidence interval for Θ and γ is the confidence coefficient, while Θ_0 and Θ_1 are respectively the upper and lower confidence limits.

Confidence interval implies that, if we generate a large number of samples and their corresponding intervals, then approximately γ of such intervals will contain true value Θ.