BA5106: Statistics for Management

Two Mark Questions with Answer

Unit-V CORRELEATION AND REGRESSION

1. What is Correlation?

   Correlation is a measure of association between two variables. The variables are not designated as dependent or independent.

2. What is the use of correlation & regression?

   Correlation & regression is a statistical tool are used to measure strength of relationships between two variables.

3. What can be the values for correlation coefficient?

   The value of a correlation coefficient an vary from -1 to 1. A-1 indicates a perfect negative correlation and a-1 indicates a perfect positive correlation. A correlation coefficient of zero means there is no relationship between the two variables.

4. What is the interpretation of the correlation coefficient values?

   When there is a negative correlation between two variables as the value of one variable increases, the value of the other variable decreases and vice versa. In other words, for a negative correlation the variables work apposite each other. When there is a positive correlation between two variables as the value of one variable increases the value of the other variable also increases. The variables move together.

5. What is simple regression?

   Simple regression is used to examine the relationship between one dependent and one independent variable. After performing an analysis, the regression statistics can be used to predict the dependent variable when the independent variable is known. Regression goes beyond correlation by adding prediction capabilities.

6. Explain the mathematical analysis of regression.

   In the regression equation, y is always the dependent variable and x is always the independent variable. Here are three equivalent ways to mathematically describe a linear regression model.

   Y = intercept + (slope x) + error

   Y = constant + (coefficient x) = error

Diploma, Anna University-UG, PG., HSC & SSLC

Notes   *Available @*
Syllabus
Question Papers   www.AllAbtEngg.com
Results and Many more…

Y = a +bx + c

The significance of the slope of the registration line is regression line is determined from the t-statistic. It is the probability that the observed correlation coefficient occurred by chance if the true correlation is zero. Some researchers prefer to report the F-ratio instead of the t-statistic. The F-ratio is equal to the t-statistic squared.

7. What are indexed numbers?

   Index numbers are used to measure changes in some quantity which we cannon observe directly.

   E.g. Changes in business activity.

8. Define rank correlation.

   It is a measure of correlation which is used when quantitative measures for certain factors. It can be arranging in serial order.

9. Define least square method.

   A definition of the terms line of best fit should give a unique line, least square method is the one to used in statistics for obtaining the line of best fit.

10. List advantages of least square.
    - Objective method.
    - Easy calculation.
    - Determines trend values.
    - Flexible method.