KERALA AGRICULTURAL UNIVERSITY
B.Tech.(Food Engg.) 2015 Admission
V Semester Final Examination-January-2018

Basc.3110   Statistics (1+1)   Marks: 50

Time: 2 hours

(10x1=10)

I   **Match the Following**

1   Correlation Coefficient   a   Repetition of treatment
2   Chi- Square test   b   Consistency of data
3   Standard Error   c   Independence of attribute
4   Replication   d   Standard deviation of sampling distribution of statistic
5   Coefficient of variation   e   Measure of relationship

State True or False

6   Professor R.A. Fisher is referred as a father of Statistics.

7   Calculation of satisfactory average should be based on all observations.

8   Standard deviation is a measure of central tendency.

9   The total probability (p) is always equal to one.

10 Statistical constants computed from sample values are known as parameters.

II   **Write Short notes on ANY FIVE of the following**   (5x2=10)

1   If mode of the data is 18 and mean is 24 then what is the value of median for the data?

2   What are the characteristics of good average?

3   Write properties of correlation coefficient.

4   Define Type-I and Type-II error.

5   If three coins are tossed, what is the probability of getting neither 3 heads nor 3 tails?

6   What is control chart?

7   Write the applications of Completely Randomized Design.

III   **Answer ANY FIVE of the following**   (5x4=20)

1   Write probability mass functions of Binomial and Poisson distributions. Give the examples of Binomial and Poisson variates.

2   Define Normal Distribution. Write its properties.

3   Write applications of Chi-Square test.

4   Explain the test procedure for testing the significance of means of two independent samples.

5   Derive the equation of regression line of Y on X.

6   What do you understand by 'Design of Experiments'? Write three basic principles of Design of Experiments.

7   Define Statistical Quality Control. Write the uses of X-bar and R charts.

IV   **Write an essay on ANY ONE of the following**   (1x10=10)

1   Write Analysis of Variance of Completely Randomized Design.

2   Write Analysis of Variance of Randomized Complete Block Design.

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