Stat.3501

KERALA AGRICULTURAL UNIVERSITY

B.Tech. (Ag. Engg.) 2015 Admission

V Semester Final Examination-January-2018

Statistics (1+1)

Marks: 50

Time: 2 hours

I **Fill in the blanks:** **(10x1=10)**

1 The decision of rejecting the null hypothesis when it is true refers to----------

2 When the sample size n is more than 30 is denoted by----------sample.

3 To compare the proportion of two samples, we use----------test.

4 The equality of two variances is tested using----------

5 ----------causes of variation are created by human beings.

State True or False

6 A summary measure that describes the characteristic of a sample is statistic.

7 For a Poisson distribution mean is greater than variance.

8 The critical region is also called as rejection region.

9 C chart comes under the category of variable control charts.

10 In the case of one way classification, the total variation can be split into two components.

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

1 Define arithmetic mean.

2 Define probability.

3 What is sampling? Give a suitable example.

4 Define standard error.

5 What are the conditions for validity of χ^2 test?

6 What are the assumptions of ANOVA?

7 Write the ANOVA model of RBD and explaining the terms involved in it.

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

1 Explain the computation of standard deviation for grouped and ungrouped data.

2 State and prove multiplication theorem on probability.

3 Explain paired t test.

4 Write the chi square test for testing the association of a 2 x 2 contingency table.

5 State the properties of correlation coefficient.

6 Mention the steps of obtaining various sums of squares in CRD design with r = 4 and t = 5.

7 Explain the method of fitting simple linear regression equation

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

1 How will you carry out the analysis of randomized block design?

2 Explain in detail the steps for constructing attribute control charts.

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