KERALA AGRICULTURAL UNIVERSITY

B.Tech.Food Engg. 2014 Admission

Vth Semester Final Examination-January 2017

Cat. No: Basc. 3110   Marks: 50

Title: Statistics (1+1)   Time : 2 hours

I. Choose the correct Answers/ Fill in the blanks/Define: (10 x 1=10)

1. The suitable measure of central tendency for qualitative data is

   a) Mode b) Arithmetic mean c) Geometric mean d) Median

2. If all observations in a set of observations are same, the variance of the set of values is.

   a) One b) Zero c) Infinity d) None of the above

3. Level of significance is the probability of

   a) Not committing error b) Type I error c) Type II error d) None of the above

4. Variation in the items produced in a factory may be due to

   a) Chance factors b) Assignable causes c) Both (a) and (b) d) None of the above

5. Replication provides a valid estimate of ------------

6. The term 'regression' was introduced by -----------

7. Critical region is also known as -----------

8. Any population constant is called a -----------

9. Distinguish between estimator and estimate.

10. Define coefficient of variation.

II. Write short notes/answers on ANY FIVE: (5x 2=10)

1. Define an event and give its two examples.

2. Give different measures of skewness.

3. Define Poisson distribution.

4. What do you understand by random sampling?

5. Define null and alternative hypotheses.

6. What is an experimental design?

7. What is an orthogonal polynomial?

III Write answers on ANY FIVE: (5 x 4=20)

1. Define correlation and explain different types of correlation.

2. State the conditions under which a binomial distribution is used.

3. Explain how t-test is used for comparison of two population means.

4. Given mean = 70.2 and mode = 70.5, find median using empirical relationship among them.

5. A sample of 100 units is found to have mean 74. Can it be reasonably regarded as a sample from a large population with mean 72 and standard deviation 8?

6. What is a scatter diagram ? How is it constructed? What information is conveyed by a scatter diagram about the data?

7. Explain the procedure of constructing R -chart.

IV. Write essay on any ONE

1. Following are the weekly sale records (in Rs.) of three salesmen A, B and C of a [unclear] during 13 sale-calls.

A:	300	400	300	500	
B:	600	300	300	400	
C:	700	300	400	600	500

Test weather sales of three salesmen are different.

2. Discuss briefly the different applications of chi-square as test statistic.

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