

KERALA AGRICULTURAL UNIVERSITY

B.Sc (Ag) 2004 Admission

One Time Supplementary Examination,

Final Examination, March 2017

Course Code: Stat. 1201

Title: Elementary Statistic (1+1)

Marks: 60.00

Time: 2 ½ hours

I. Answer the following

(20 × 0.5 = 10)

1. Data originally collected for any investigation is called -----
2. Class-mark is the value lying half-way between -----
3. According to sturge's rule, the no. of classes for a frequency distribution is given by -----
4. Median is the average suited for ----- classes
5. The mean of 10 observations is 20 and median is 15. If 5 is added to each observation, the new mean is ----- & median is -----
6. The geometric mean of 2,4,16 and 32 is
7. Kurtosis is a measure of ----- of the frequency curve
8. For a symmetrical distribution, mean, median and mode -----
9. Quartile deviation is given by -----
10. If $\beta_2 = 3$, the curve is called -----
11. The median is not affected by extreme observations (True/False)
12. Variance is always non - negative (True/False)
13. If each value in a distribution of 5 observations is 10, then its mean is 10 and variance is 1 (True/False).
14. Variance = μ_2 (True/False).
15. The range of variation of regression coefficient is -1 to +1 (True/False).

Match the following

- | | |
|------------------------|-----------------------------|
| 16. Dispersion | a. Probability |
| 17. Ranges from 0 to 1 | b. Frequency distribution |
| 18. Skewness | c. Coefficient of variation |
| 19. Median | d. Positional average |
| 20. Compressed data | e. Shape of distribution |
| | f. Correlation coefficient |

II. Write short notes/answers

(14 × 1 = 14)

1. Differentiate Census and sampling
2. Explain rank correlation coefficient
3. What do you mean by systematic sampling
4. Explain the term level of significance
5. What is secondary data
6. How can you draw a frequency polygon
7. When will you use Yate's correction for continuity

8. Define continuous and discrete variables
9. Explain Null hypothesis
10. Give the mean and variance of a Binomial distribution
11. Distinguish exclusive and inclusive method of classification
12. Define χ^2 statistic
13. Distinguish sampling and non sampling errors
14. Define Geometric mean

III. Answer any eight questions

(8 × 2 = 16)

1. State the addition and multiplication theorem in probability
2. Name two discrete probability distributions and write their probability function
3. Give the formula to compute A.M for raw and grouped data
4. How will you test equality of two variances
5. Explain systematic sampling
6. How can you study correlation using scatter diagram
7. Which are the different methods of classification
8. Give different steps in testing of Hypothesis
9. How will you test the equality of two means in large samples
10. How can you conduct a statistical survey

IV. Write Essay on any five

(5 × 4 = 20)

1. What are the requirements of a good measure of Average. Which is the best measure of average. Explain its properties, merits and demerits.
2. Which are the different types of diagrams used to present statistical data
3. Define Skewness and discuss various measures of skewness
4. Define normal probability distribution and state any of its five properties including the area property
5. What do you understand by absolute and relative measures of dispersion? Discuss them with respect to Mean deviation and Standard deviation comparing their merits and demerits
6. Distinguish between correlation coefficient and regression coefficient. Write the mathematical expression to compute them. Explain using examples how they are interpreted?

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