



**KERALA AGRICULTURAL UNIVERSITY**  
**B. Sc. ( Hons.) C & B 2017 Admission**  
**II Semester Final Examination- August -2018**

Stat.1202

**Statistical Methods (2+1)**

**Marks: 50**  
**Time: 2 hours**  
**(10x1=10)**

**I Fill in the Blanks**

- 1 Number of times a particular observation is repeated is known as .....
- 2 The data observed on the basis of area or region is called .....
- 3 The median of the following series 22, 18, 25, 27, 19, 24 is .....
- 4 In Normal distribution, the co-efficient of Kurtosis is .....
- 5 The probability of getting exactly 3 heads when a coin is tossed 3 times .....
- 6 In a standard normal curve, what is the value of standard deviation .....
- 7 The variance of a binomial distribution is .....
- 8 In which distribution mean and variance are equal .....
- 9 Regression means .....
- 10 If two variables are varying in the same direction, then the correlation is .....

**II Write Short notes on any FIVE of the following**

**(5x2=10)**

- 1 Properties of a good measure of central tendency.
- 2 Difference between mean and median.
- 3 Difference between mean deviation and standard deviation.
- 4 Properties of correlation co-efficient.
- 5 Define Skewness and explain the types of skewed distributions.
- 6 Define equally likely and mutually exclusive events
- 7 Conditions under which binomial distribution tends to poisson distribution.

**III Answer any FIVE of the following.**

**(5x4=20)**

- 1 Primary and secondary types of data collection.
- 2 Construction procedure of Histogram.
- 3 What is meant by scatter diagram and explain the nature of correlation with diagrams.
- 4 Properties of Normal curve.
- 5 Properties of binomial and poisson distributions.
- 6 The following numbers gives the yield of maize in different plots. Calculate mean yield of maize and standard deviation.  
234, 567, 564, 765, 347, 786.
- 7 Two cards are drawn from a pack of playing cards. Find the probability that both are Ace.
  - a) First card drawn and it is not replaced.
  - b) First card is replaced before drawing second card

**P.T.O.**

IV

Answer any ONE of the following

(1x10=10)

- 1 a) A purchasing agent receives samples of plastic bags from two suppliers A and B as follows. He tested the bags in his laboratory for taking the weight with the following results. Which company is more variable in weight?

Weight (Gms)	Supplier	
	A	B
50-60	3	10
60-70	42	16
70-80	22	36
80-90	3	8

- b) The following table shows the height (cms) and yield (gms) from a sample of 8 plants in a paddy trial conducted at a research station. Calculate Karl Pearson's co-efficient of correlation.

Height	47	42	56	52	51	62	61	59
Yield	18	21	31	24	29	26	28	48

- 2 Suppose leaf area (X) of wheat plants follows normal distribution with mean = 100 cm<sup>2</sup> and standard deviation = 10 cm<sup>2</sup>. If one plant is selected at random, what is the probability that its leaf area will be

a	Exceeds 100 cm <sup>2</sup>	c	Between 100 and 110 cm <sup>2</sup>
b	Below 100 cm <sup>2</sup>	d	Below 120 cm <sup>2</sup>

\*\*\*\*\*

