



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 poison 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 poison 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?

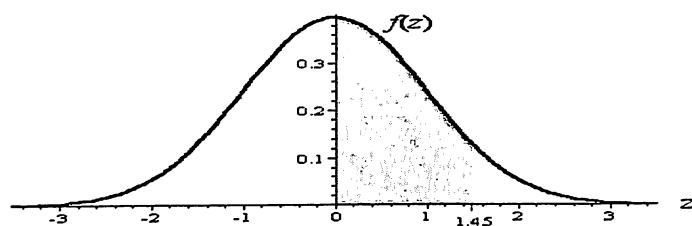
Weight (Gms)	Supplier	
	A	B
50-60	3	10
60-70	42	16
70-80	22	36
80-90	3	8

- 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^2 and standard deviation = 10 cm^2 . If one plant is selected at random, what is the probability that its leaf area will be

a	Exceeds 100 cm^2	c	Between 100 and 110 cm^2
b	Below 100 cm^2	d	Below 120 cm^2



Areas under standard normal curve from 0 to Z