

OLABISI ONABANJO UNIVERSITY, AGO-IWOYE
FACULTY OF SCIENCE

DEPARTMENT OF PLANT SCIENCE AND APPLIED ZOOLOGY
2010/2011 HARMATTAN SEMESTER EXAMINATION

COURS CODE: BIO 203
COURSE TITTLE: BIOMETRICS
TIME ALLOWED 3 HRS

(b) Population
entire collection
the measurement
the statistical
draw conclusion
sample is a su
the measurement
Population

INSTRUCTIONS: ANSWER ANY 3 QUESTIONS IN SECTION A AND ALL
QUESTIONS IN SECTION B

SECTION A

1. Distinguish between the following pair of terms:
2. (a) Descriptive Statistics and Inferential Statistics
3. (b) Population and Samples
4. (c) Quantitative data and Qualitative data
5. (d) Discrete data and Continuous data

(a) Descriptive stat is a process used to summarise, organise, simplify a data - it involves summary and orderly presentation in a graphical or tabular form. Inferential stat is the technique used to study sound rule and the generalization about their population from which they are selected.

2. Find the mean, variance and standard deviation of the following heights of dogs in mm: 600, 470, 170, 430 and 300

3. Find the mean, median and mode of the distribution below:

mean = 1414.6

Dept	60.5-65.5	65.5-70.5	70.5-75.5	75.5-80.5	80.5-85.5
Freq.	7	20	33	25	11

4. Given the following about a binomial distribution: $n=5$, P (red

Flower)=0.75, q (yellow flower)=0.25. Find the probability of having (i) One red flowered plant (ii) Three red flowered plant (iii) Two yellow flowered plant (iv) Four or more red flowered plant.

SECTION B

5a. List 4 merits and 4 demerits of using scatter diagram to determine the correlation between two variables.

Using the Table below.

5b(i) What is the level of association between the yield of rice and the water used for irrigation

5b(ii) Obtain the equation of the line of regression of yield of rice on water

5b(iii) What will be the yield of rice when the water used for irrigation is 52 inches

5b (iii) Predict the water used for irrigation when the yield is 7.86

$$\frac{\sum(x-\bar{x})^2}{n-1} = \frac{108520}{4} = 27130$$

$$S = \sqrt{S^2} = \sqrt{27130} = 164.71$$

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$$(600-394)^2 + (470-394)^2 + (170-394)^2 + (430-394)^2 + (300-394)^2$$

$$= 42436 + 5776 + 50176 + 1296 + 8836$$

where d_i = deviation

6. In an examination, 10 students obtained the following marks in Biology and Agric.
Find the coefficient of rank correlation.

Using the rank correlation coefficient method, what is the level correlation between marks in Biology and Physics?

independent or observe the
 that these from the biological
 entity to another.
 Data is a collection of
 measurement or observations
 Datum is a single measurement
 or individuality usually called
 size of random sample
 Properties of random variable
 - The experiment consist of
 a trials
 - The repeated trials are
 independent
 - The probability of success
 denoted by p remain constant
 from trial to trials
 - Each trials results in an
 outcome considered success or
 failure
 - The probability of exactly r suc-
 cence in n trial of an event
 consist of constant p given as

$$P(X=r) = {}^n C_r p^r q^{n-r}$$

[illegible]

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