



NATIONAL OPEN UNIVERSITY OF NIGERIA
91, CADASTRAL ZONE, UNIVERSITY VILLAGE, JABI, ABUJA
FACULTY OF AGRICULTURAL SCIENCES
DEPARTMENT OF CROP AND SOIL SCIENCES
2020_2 EXAMINATION ...

COURSE CODE: AGR 302

COURSE TITLE: AGRICULTURAL STATISTICS AND DATA PROCESSING

INSTRUCTIONS: ANSWER FOUR (4) QUESTIONS. QUESTION 1 IS COMPULSORY (25 MARKS) AND ANY OTHER THREE (3) (15 MARKS EACH)

- 1 Fifteen goats were randomly allocated to three (3) groups with three (3) different levels of protein in their diet. This experiment was replicated five (5) times.

Level 1	Level 2	Level 3
6.0	8.0	10.0
5.2	6.5	8.20
5.5	8.3	8.0
4.5	9.0	7.2
4.8	6.8	9.3

1. 1Draw an ANOVA table and state all the mean squares and their degrees of freedom. (21 marks)

1b. Describe the following sampling methods:

- i. Random sampling
- ii. Stratified sampling (4 marks)

- 2 Simply differentiate between Simple and Multiple Correlation (5 marks)
- b. Briefly describe any five (5) types of simple correlation or simple regression (10 marks)
- 3 Discuss these Essential in Steps Experimentation under the following headings
- a. Definitions of Objectives
- b. Choice of Treatments
- c. Replication
- d. Literature review
- e. Field experimentation practices (15 marks)
- 4 What is ANCOVA (4 marks)
- b. When is ANCOVA used? (11 marks)
- 5 State five (5) properties of a Normal Curve (5 marks)
- b. Solve the following:
- i. 15!
- ii. 10!
- iii. 7! (6 marks)
- c. Describe Subjective probability (4 marks)
- 6 Describe a factorial experiment (2 marks)
- b. Explain Type I and Type II error (10 marks)
- c. State three (3) assumptions of Analysis of Variance (ANOVA) (3 marks)
- 7 Define Central Tendency (3 marks)
- b. Discuss the following
- i. Mean ii. Median iii. Mode (12 marks)