



NATIONAL OPEN UNIVERSITY OF NIGERIA
University Village, Nnamdi Azikiwe Expressway, Plot 91, Cadastral Zone, Jabi, Abuja
Faculty of Agricultural Sciences
First Semester POP Exam Question 2021_1

Course Title: Analytical Techniques for Animal Production I ⁷⁸³⁶

Course Code: AGR 305

Credit Unit: 2

Total Score: 70 Marks

Time Allowed: 2 Hours

INSTRUCTION:

Answer Compulsory Question 1 (30 marks) and any 2 questions (20 marks each).

Question one

- Calculate the mean, mode and median of these set of data 4, 9, 7, 12, 9, 5, 10, 11, 7, 8, 9, 12, 6, 8, 6, (5 marks)
- Define filtration and highlight two (2) types of filtration technique (6 marks)
- Differentiate between Sample Frame and Random Number Sampling Techniques (4 marks)
- A sample of animal tissues was taken to the laboratory but was returned unanalyzed; give six (6) possible reasons why the sample was not collected. (6 marks)
- Give one (1) advantage each for mixing, oven drying, sieving and heating in sample treatment (4 marks)
- What do you understand by Qualitative Analysis; give two (2) examples this analysis in Animal Science (5 marks)

Question two

- Give the meaning of Data Collection (2marks)
- A student wants to carry out a research, advice him on the two main ways he can generate data (6 marks)
- Give the meaning of the following terms
 - Experiment
 - Independent Event
 - Mutually Exclusive Events (3 marks)
- Differentiate between emperical and classical probabilities (4 marks)
- Give two (2) characteristics and (3) three uses of Chi-square (5 marks)

Question three

- Give the meaning of control experiment (2 marks)
- Identify the differences between precision and accuracy of experimental error. (4 marks)
- Mr Musa wants to know if he can use Randomised Complete Block Design and Latin Square Design for his research, describe the designs for him. (6 marks)
- State the difference between Systematic and Stratified Sampling Techniques (4 marks)
- State the meaning of Kjeldahl Method and mention the three (3) main parts (4 marks)

Question four

- a) State the meaning of Descriptive Statistics and Scatter Graph (4 marks)
- b) Draw a scatter graph to show a relationship where there is no correlation. (7 marks)
- c) Mention two (2) uses of sampling in research (2 marks)
- d) An undergraduate student wants to carry out sampling for his research, advice him on seven (7) criteria he needs to have a good sampling plan (7 marks)