



UNIVERSITY OF SWAZILAND

1st SEM. 2017/2018

FINAL EXAMINATION PAPER

PROGRAMME: B.Sc. ANIMAL SCIENCE YEAR 3 AND B.Sc. ANIMAL SCIENCE (DAIRY) YEAR 3

COURSE CODE: ASC 305

TITLE OF PAPER: RESEARCH METHODS

TIME ALLOWED: TWO (2) HOURS

INSTRUCTIONS: ANSWER ANY FOUR (4) QUESTIONS

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QUESTION 1

(a) Define the following terms commonly used in research:

- (i) Experimental unit (2 marks)
- (ii) Reductive research (2 marks)
- (iii) Deductive research (2 marks)
- (iv) Empirical research (2 marks)
- (v) Research ethics (2 marks)
- (vi) Experimental error (2 marks)
- (vii) Research hypothesis (2 marks)
- (viii) Inferences (2 marks)
- (ix) Accuracy (2 marks)
- (x) Confounding factor (2 marks)

(b) List any FIVE factors that determine the choice of experimental design (5 marks)
(25 Marks)

QUESTION 2

(a) Briefly explain the rationale for using samples instead of studying the whole population when conducting research (5 marks)

(b) List and explain any TEN characteristics of research (20 marks)

(25 Marks)

QUESTION 3

Discuss the various types of research.

(25 Marks)

QUESTION 4

Read the research topic below and answer the questions that follow:

“Effects of Dietary Supplementation with Two Graded Levels of Marula Seed Cake with or without a Mycotoxin Binder on Productive Performance and Meat Quality in Broilers”

- (a) What would be the hypothesis / hypotheses for such a study? (2 marks)
 - (b) What would be its main or general objective? (2 marks)
 - (c) **Name and illustrate** the experimental design you think would be most appropriate for the study, including the **number of experimental units** that you believe would be scientifically reasonable (16 marks)
 - (d) What would be the FIVE typical dependent variables in the study? (5 marks)
- (25 Marks)**

QUESTION 5

Based on your knowledge of how to write a research proposal, write comprehensively a typical **Materials and Methods** section of a research project with the following topic:

“Melia azedarach Leaf Meal as an Alternative Protein Source for Lactating Saanen goats”.

(25 Marks)