



1st SEM.2008/2009

Page 1 of 3

**UNIVERSITY OF SWAZILAND
FINAL EXAMINATION PAPER**

PROGRAMME: B.SC. IN ANIMAL SCIENCE YEAR III

COURSE CODE: APH 307

TITLE OF PAPER: RESEARCH METHODS IN ANIMAL PRODUCTION

TIME ALLOWED: TWO (2) HOURS

**INSTRUCTIONS: ANSWER QUESTION FOUR (4) AND ANY OTHER THREE
(3) QUESTIONS**

**DO NOT OPEN THIS PAPER UNTIL PERMISSION HAS BEEN GRANTED BY
THE CHIEF INVIGILATOR**

QUESTION 1

The ultimate goal of research in Animal Production and Health related disciplines is to find truth and make building stones out of stumbling blocks. Describe the characteristics of a good research that would find practical solutions to the problems related to small ruminant production. (25 points)

QUESTION 2

Literature review is one component of a final year (e.g. 4th year in Animal Science) research proposal. Discuss the following

- A) The purposes and sources of literature. (12.5 points)
- B) Steps you would consider in writing literature review. (12.5 points)

QUESTION 3

Suppose that you are given a task to conduct a survey on “phenotypic characterization of indigenous chicken ecotypes of Swaziland and their management by small-scale producing farmers”.

- A) Indicate the most appropriate sampling method to conduct your survey. Explain why you have chosen the method stating its advantages. (12.5 points)
- B) In dealing with their management by the small scale farmers, you will need to interview the communal people under your choice. As a researcher, name three basic types of questions you will use to interview the target groups. Give at least one example to each kind of question. (12.5 points)

QUESTION 4

Suppose that you have four (4) different diets which you want to compare. The diets are labelled as Diet A, Diet B, Diet C and Diet D. You are interested in how the diets affect the coagulation rates of rabbits. The coagulation rate is the time in seconds that it takes for a cut to stop bleeding. You have sixteen (16) rabbits, which are homogenous, available for the experiment.

- A) Which design is most appropriate to conduct the experiment? Why? State the advantages and limitation of your design. (15 points)
- B) Lay out the experimental design (5 points)

- C) State how you should use the randomization to assign the rabbits to the four treatment groups. (5 points)

QUESTION 5

Write short notes on

- A) Standard error (5 points)
- B) Non-probability sampling (8 points)
- C) Research hypothesis (6 points)
- D) Factorial experiment (6 points)