



UNIVERSITY OF SWAZILAND
2nd SEM. 2014/2015
FINAL EXAMINATION PAPER

PROGRAMME: B.Sc. AGRICULTURAL EDUCATION YEAR 4
B.Sc. ANIMAL SCIENCE YEAR 4
B.Sc. AGRICULTURAL & BIOSYSTEMS ENGINEERING
YEAR 4

COURSE CODE: AS 404

TITLE OF PAPER: FISH FARMING

TIME ALLOWED: TWO (2) HOURS

INSTRUCTIONS: ANSWER ANY FOUR (4) QUESTIONS

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

QUESTION 1

Explain, with illustrations, the relationship between a pond's carrying capacity and the different levels of intervention.

(25 Marks)

QUESTION 2

In a location of your choice in Swaziland, with justifications, discuss how to set up a hatchery for the production of tilapia over a two year period.

(25 Marks)

QUESTION 3

Write an essay on parasitic diseases of fish and the treatment methods used.

(25 Marks)

QUESTION 4

(a) A farmer has contacted you to solve a problem with his watershed pond.

It is a relatively new pond with no trees nearby. The pond is stocked with bass and bluegill for recreational fishing. The water has a hardness and alkalinity of 90 ppm. No matter how much fertilizer (triple super phosphate) he uses, he cannot get a good phytoplankton bloom. He wants to keep out any potential weed problem by stimulating a phytoplankton bloom. What's the problem and how can it be solved?

(10 Marks)

(b) Write an essay on artemia production

(15 Marks)

QUESTION 5

Discuss in detail the following:

- i) Fish grading
- ii) Fish salting
- iii) Dissolved oxygen
- iv) Fish kills
- v) Osmoregulation

(5 marks)

(5 marks)

(5 marks)

(5 marks)

(5 marks)