



**UNIVERSITY OF SWAZILAND**

**2<sup>ND</sup> SEM. 2017/2018**

**MAIN 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**

Mr Dlamini wants to start a tilapia farm at Peak's Peak. He has a 1 hectare plot with a slope of 2:1, situated near Peak Timber Company. Unfortunately there is no river or stream nearby, so he is planning to use city water. Advise him on what he should do in order to have a well set-up and fully functional fish farm. (25 Marks)

**QUESTION 2**

- a) Write an essay titled "Fish stress". (15 Marks)
- b) Briefly discuss the importance of record keeping in a fish farm. (10 Marks)

**QUESTION 3**

Write a detailed account of how you would manage water and soil quality for the benefit of aquaculture. (25 Marks)

**QUESTION 4**

- a) Your employer almost fired you this morning. You had gotten up early to stock the larval fish into a nursery pond and were about to stock the pond when she came in and asked you four questions. You answered each one and she started shouting at you. What were the questions? What was wrong and what should you have done? (15 Marks)
- b) What is a hatchery and why is it important? (10 Marks)

**QUESTION 5**

Discuss, with relevant illustrations, the use of hormones in the sex reversal of the following fry breeders:

- a) *Oreochromis aureus* (12.5 Marks)
- b) *Oreochromis niloticus* (12.5 Marks)