



**UNIVERSITY OF SWAZILAND**

**2<sup>ND</sup> SEM.2012/2013**

**SUPPLEMENTARY EXAMINATION PAPER**

**PROGRAMME:                    B.SC. ANIMAL SCIENCE YEAR 4,  
   AGRICULTURAL EXTENTION AND  
   EDUCATION YEAR 4**

**COURSE CODE:                AS 403**

**TITLE OF PAPER:              DAIRY PRODUCTION AND TECHNOLOGY**

**TIME ALLOWED:               TWO (2) HOURS**

**INSTRUCTION:                ANSWER ANY FOUR QUESTIONS**

**THIS PAPER SHOULD NOT BE OPENED UNTIL THE CHIEF  
INVIGILATOR HAS GRANTED PERMISSION.**

### QUESTION 1

Suppose you have just been employed at the Ministry of Agriculture and Cooperatives, Fisheries Section and you are asked to develop fish farming in the Mazini region:

- a) Which fish species would you farm? Explain based on regional characteristics. (12 marks)
- b) List the main rivers of that region. (6 marks)
- c) Describe subsistence fish farming in Swaziland. (7 marks)

### QUESTION 2

Write short notes on:

- a) Function of nostrils in the fish. (5 marks)
- b) Function of lateral line in the fish. (5 marks)
- c) Function of midbrain in the fish. (5 marks)
- d) Osmoregulation of marine fish. (10 marks)

### QUESTION 3

- a) Describe the reproduction of *Tilapia rendalli*. (15 marks)
- b) Describe the method of obtaining the supermale in *Oreochromis niloticus*. (10 marks)

### QUESTION 4

- a) Discuss the common aquatic plants found in fish ponds. (15 marks)
- b) With reference to water turbidity, explain the meaning of Secchi disc visibility less than 20 cm. (10 marks)

### QUESTION 5

Discuss in details the filleting of tilapia. (25 marks)