

UNIVERSITY OF SWAZILAND
Faculty of Health Sciences

DEGREE IN ENVIRONMENTAL HEALTH SCIENCES
FINAL EXAMINATION PAPER 2005

TITLE OF PAPER : FOOD FERMENTATION AND DAIRY SCIENCE

COURSE CODE : EHS 513

DURATION : 3 HOURS

MARKS : 100

INSTRUCTIONS :

- READ THE QUESTIONS & INSTRUCTIONS CAREFULLY
- ANSWER ONLY **FIVE** QUESTIONS
- EACH QUESTION CARRIES 20 MARKS.
- WRITE NEATLY & CLEARLY
- NO PAPER SHOULD BE BROUGHT INTO OR OUT OF THE EXAMINATION ROOM.
- BEGIN EACH QUESTION ON A SEPARATE SHEET OF PAPER.

DO NOT OPEN THIS QUESTION PAPER UNTIL PERMISSION IS GRANTED BY THE INVIGILATOR.

QUESTION 1

Describe and illustrate the major phases of growth of culture during a fermentation process. (20 Marks).

QUESTION 2

Briefly discuss any five major groups of commercially important fermentations (20 Marks).

QUESTION 3

Discuss the fermentation technology of Yoghurt (20 Marks)

QUESTION 4

Discuss the fermentation technology of fish sauces (20 Marks)

QUESTION 5

Given whole milk containing 4% butter fat and full cream containing 45% butterfat, you are asked to prepare 100 litres of single strength cream containing 18% butter fat. Calculate the litres of whole milk and of full cream that may you mix. (20 Marks)

QUESTION 6

Write short notes about the following:

- a. Methylene blue test (6 Marks)
- b. Milk adulteration (4 Marks)
- c. The lactoperoxidase system of milk (10 Marks)