



UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER

**PROGRAMME : BACHELOR OF SCIENCE IN FOOD
SCIENCE, NUTRITION & TECHNOLOGY
YEAR IV**

COURSE CODE : FSNT 406

TITLE OF PAPER : FERMENTATION TECHNOLOGY

TIME ALLOWED : TWO (2) HOURS

**INSTRUCTIONS : ANSWER QUESTION ONE (1)
AND ANY OTHER (2) QUESTIONS**

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

QUESTION 1[COMPULSORY]

- i. Define the terms sweet wine and dry wine [8 marks]
- ii. What is the reason for maintaining semi-aerobic conditions during the manufacture of sauerkraut? [8 marks]
- iii. Genetically modified organisms are causing considerable debate around the world. What are the advantages and disadvantages of GMOs? [12 marks]
- iv. Lactose intolerant persons can consume fermentation milk products with no adverse effects. Explain [12 marks]

[Total Marks = 40]

QUESTION 2

As a manufacturer, show how you would manipulate the fermentation process of molasses to maximize:

- a) Yeast cell biomass production [15 Marks]
- b) Alcohol production [15 Marks]

[Total Marks = 30]

QUESTION 3

What are probiotic bacteria and in which ways ^{are} ~~can~~ they beneficial to the consumers of fermented products?

[Total Marks = 30]

QUESTION 4

Give three mould fermented products and describe the processing procedures of one.

[Total Marks = 30]