

**UNIVERSITY OF SWAZILAND
FACULTY OF HEALTH SCIENCES**

EXAMINATION: **Final Examination** **May, 2006**

PROGRAM: **Bachelor of Environmental Health Science IV**

COURSE: **Food Chemistry**

COURSE CODE: **EHS 511**

INSTRUCTIONS: **ANSWER ANY Four (4) QUESTIONS**

TIME ALLOWED: **2 Hours**

**THIS PAPER MUST NOT BE OPENED UNTIL PERMISSION HAS BEEN
GRANTED BY THE INVIGILATOR.**

QUESTION 1

What is water activity? Discuss its role in food spoilage. (25 Marks)

QUESTION 2

Using structures to illustrate your answer describe the following:

- a) Sugar enantiomers (7 Marks)
- b) Sugar epimers (7 Marks)
- c) Sugar tautomer (6 Marks)
- d) Deoxy-sugars (5 Marks)

QUESTION 3

Briefly discuss:

- a) Cyanogenic glucosides (13 Marks)
- b) Fatty acids in foods (12 Marks)

QUESTION 4

Using structures to illustrate your answer, describe the two families of carbohydrates (25 Marks)

QUESTION 5

- a) Briefly discuss the classification of proteins on the bases of structure. (15 Marks)
- b) Write short notes about essential amino acids (10 Marks)