



1ST SEM. 2005/2006

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UNIVERSITY OF SWAZILAND

FINAL EXAMINATION PAPER

**PROGRAMME : DIPLOMA IN HOME ECONOMICS
EDUCATION AND HOME
ECONOMICS YEAR II**

COURSE CODE : FN 201

TITLE OF PAPER : INTRODUCTION TO FOOD SCIENCE

TIME ALLOWED : TWO (2) HOURS

**INSTRUCTIONS : ANSWER QUESTION ONE (1)
AND ANY OTHER (3) QUESTIONS**

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QUESTION 1

Briefly explain the following:

- a) Components of starch in food system
- b) Syneresis
- c) Denaturation
- d) Retrogradation
- e) Gelatinization
- f) Reducing sugars
- g) Rancidity
- h) Gluten
- i) Essential amino acid
- j) Food science

[Total = 40]

QUESTION 2

- a) What are the components of food and give examples [10]
- b) When a peeled banana, apple, and potato are exposed to air, chemical changes occur. Explain [10]

[Total = 20]

QUESTION 3

- a) Explain as concisely as possible, what happens when you expose a protein such as milk and egg to heat and mention the temperature, taste and the protein involved. [10]

- b) Enzymes are classified into six categories, name five of these. [10]

[Total = 20]

QUESTION 4

- a) Briefly explain the following and give an example of each.
 - i) Saturated fats
 - ii) Mono saturated fats
 - iii) Poly saturated fats
 - iv) Monosaccharides.
 - v) Polysaccharides.

[Total = 20]

QUESTION 5

a) Explain the effects of the following on starch by giving brief description

- i) Acid
- ii) Sugar
- iii) Oil

[10]

b) Describe the process by which a foam is formed when an egg is whisked.

[10]

[Total = 20]