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**1<sup>ST</sup> SEM. 2013/2014**

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**UNIVERSITY OF SWAZILAND**

**FINAL EXAMINATION PAPER**

**PROGRAMME : BACHELOR OF SCIENCE IN FOOD SCIENCE, NUTRITION &  
TECHNOLOGY;  
BACHELOR OF SCIENCE IN CONSUMER SCIENCE;  
BACHELOR OF SCIENCE IN CONSUMER SCIENCE  
EDUCATION. YEAR IV**

**COURSE CODE : FSNT 402**

**TITLE OF PAPER : FOOD SAFETY AND PUBLIC HEALTH**

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

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

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CHIEF INVIGILATOR**

**QUESTION 1 (COMPULSORY)**

- (a) Where, when and how can the safety of our food supply be lost or compromised?  
Discuss, illustrating your points as necessary. (8 Marks)
- (b) Explain what makes a food to be considered 'High Risk'. (6 Marks)
- (c) As individuals how can we each ensure that we minimize or lessen the probability of contracting a foodborne (water and food) illness or disease at home and elsewhere?  
(8 Marks)
- (d) Define the following terms within the context of food:
- i) Public Health (5 Marks)
  - ii) Food Safety (5 Marks)
- (e) What is a Food Regulatory Agency? Is there one in Swaziland? Name it. What is its responsibility? Name one other Food Regulatory Agency from any other country.

(8 Marks)

**[TOTAL MARKS = 40]****QUESTION 2**

- (a) Explain **four (4)** types of spoilage that is typically seen in various foods. Name the type or class of foods where each type of spoilage is common. (8 Marks)
- (b) Identify **three (3)** types of pathogenic bacteria and briefly describe the characteristics, foods mostly affected and the disease or illness associated with each type. (9 Marks)
- (c) Define a food-borne outbreak, a reported case and a confirmed outbreak. (7 Marks)
- (d) Other types of hazards or illness causing agents contaminating our food supply do not cause immediate ill effects, illness or disease. Symptoms of a disease or a disease itself can strike long after (5-20 years) of ingesting disease or illness-causing agents. Identify **two (2)** of these and briefly explain the type of disease(s) associated with them.

(6 Marks)

**[TOTAL MARKS = 30]**

**QUESTION 3**

(a) Explain what is meant by the following terms and give pertinent examples for each.

- i) 'Emerging' microorganisms (4 Marks)
- ii) 'Opportunistic' organisms (4 Marks)
- iii) Differentiate between Infection; Intoxication; Toxicoinfections. Give an example of a microorganism that causes each type of illness or disease. (10 Marks)

(b) Name and explain **four (4)** categories of population groups that are easy targets for disease or illness-causing food contaminants like microorganisms, parasites, viruses.

(12 Marks)

[TOTAL MARKS = 30]

**QUESTION 4**

Write short notes on the following terms to demonstrate your theoretical and practical knowledge. Give appropriate examples where needed.

- (a) GMOs (3 Marks)
- (b) Halaal (3 Marks)
- (c) Teratogenic (3 Marks)
- (d) Psychrotrophic bacteria (3 Marks)
- (e) Halophilic bacteria (3 Marks)
- (f) Maximum Residue Levels (3 Marks)
- (g) Epidemiology (4 Marks)
- (h) Infective Dose (4 Marks)
- (i) Vector-borne (4 Marks)

[TOTAL MARKS = 30]