



**UNIVERSITY OF SWAZILAND**  
**Faculty of Health Sciences**

**DEGREE IN ENVIRONMENTAL HEALTH**  
**FINAL EXAMINATION PAPER 2019**

**TITLE OF PAPER** : FOOD TOXICOLOGY

**COURSE CODE** : EHS 450

**DURATION** : 2 HOURS

**MARKS** : 100

**INSTRUCTIONS** :

- : READ THE QUESTIONS & INSTRUCTIONS CAREFULLY
- : ANSWER ALL FOUR (4) QUESTIONS
- : EACH QUESTION CARRIES 25 MARKS.
- : WRITE NEATLY & CLEARLY
- : BEGIN EACH QUESTION ON A SEPARATE SHEET OF PAPER.

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

**Question 1**

- a) What is meant by toxikonetics ? [5marks}
  - b) Discuss the toxicological paradigm [10 marks]
  - c) Discuss the molecular target concept [10 marks]
- [Total = 25 marks]**

**Question 2**

- a) What do the following mean?
    - I. Food additive [3 marks]
    - II. Food contaminant [3 marks]
    - III. Dose [3 marks]
    - IV. Dosage [3 marks]
    - V. Margin of safety [3 marks]
    - VI. Therapeutic index [3 marks]
    - VII. LD<sub>50</sub> [2 marks]
  - b) What are the major classes of pesticides in food [5 marks]
- [Total = 25 marks]**

**Question 3.**

- a) What are mycotoxins? [5 marks]
  - b) Discuss with examples, why are mycotoxin of concern in public health [15marks]
  - c) How can the risk of mycotoxin be minimized [5 marks]
- [Total = 25 marks]**

**Question 4.**

- a) Discuss the importance of the gastrointestinal (GI) tract in food toxicology. [15 marks]
  - b) What is meant by biotransformation? And further explain its role in toxicokinetics [10 marks]
- [Total = 25 marks]**