



NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF ENVIRONMENTAL SCIENCES

DEPARTMENT OF ENVIRONMENTAL HEALTH

MASTER OF SCIENCE DEGREE IN ENVIRONMENTAL HEALTH

FOOD SAFETY MANAGEMENT

EEH 5101

EXAMINATION PAPER

OCTOBER 2024

This examination paper consists of 2 pages

Time Allowed: 3 hours

Total Marks: 100

Special Requirements: None

Examiner's Name: Mrs P Garamumhango

INSTRUCTIONS

1. Answer any **FOUR** questions
2. Each question carries 25 marks

MARK ALLOCATION

QUESTION	MARKS
1.	25
2.	25
3.	25
4.	25
5.	25
6.	25
TOTAL	100

Question 1

- (a) Describe and explain how biological hazards enter the food value chain. **(15 marks)**
- (b) Outline the keys to safer food, handlers have to follow as suggested by FAO. **(10 marks)**

Question 2

Discuss the techniques used in food preservation, highlighting factors influencing microbial growth and behaviours. **(25 marks)**

Question 3

- (a) Discuss the role of regulatory agencies in ensuring food safety in Zimbabwe. **(16 marks)**
- (b) Briefly describe the process of risk analysis in food safety management. **(9 marks)**

Question 4

Discuss methods and or tools used in food quality control. **(25 marks)**

Question 5

- (a) A food borne illness outbreak has occurred in the canteen of your establishment. How would you use HACCP principles to investigate the cause and prevent future incidents. **(10 marks)**
- (b) Give an account of the programs which have to be in place in order to implement HACCP. **(10 marks)**
- (c) State the key elements of ISO 22000;2018 **(5 marks)**

Question 6

Making reference to Sub Saharan Africa, discuss the main challenges, achievements, threats and opportunities with regard to safe food provision and public health. **(25 marks)**