



TECHNICAL UNIVERSITY OF MOMBASA

FACULTY OF APPLIED AND HEALTH SCIENCES

DEPARTMENT OF ENVIROMENT & HEALTH SCIENCES

UNIVERSITY EXAMINATION FOR:

BACHELOR OF SCIENCE IN

BSCH/14S/YEAR 4/ SEMESTER 1

APH 4405: FOOD SAFETY AND SECURITY

SPECIAL/ SUPPLIMENTARY EXAMINATIONS

SERIES: SEPTEMBER 2018

TIME: 2 HOURS

Instructions to Candidates

This paper consists of FIVE questions

Answer question ONE (COMPULSORY) and any other TWO questions.

This paper consists of two printed pages.

Mobile phones are NOT allowed in the examination room

Question ONE

a. Define the following terms

- | | |
|--------------------|---------|
| i. An allergen | 2 marks |
| ii. Food poisoning | 2 marks |
| iii. Food access | 2 marks |

b. Explain five effects of food borne illnesses on an establishment. 5 marks

c. Distinguish between:

- | | |
|--|---------|
| i. Chronic food insecurity and transitory food insecurity | 4 marks |
| ii. Bacterial food intoxication and bacterial food infection | 4 marks |

d. Explain any FOUR hygienic practices by employees in a food establishment which promote food safety. 4 marks

e. State four pathways in which chemical contaminants can get into food 4 marks

f. State FOUR importance of food fortification according to Food and Drug Regulations. 4marks

Question TWO

Food additives have been used in food for many years. Food drug regulations are specific about the levels used and some are associated with chronic diseases.

- a) Describe the benefits of using food additives. 6 marks
- b) Discuss the use of Sodium Nitrite as a preservative. 14 marks

Question THREE

Discuss the factors that affect food security negatively and coping mechanisms adapted to deal with food insecurity. 20 marks

Question FOUR

Bacterial food poisoning is the most common microbiological contamination that causes food borne illness in many parts of the world today.

- a) Explain the conditions that bacteria need to grow and multiply to cause food borne illnesses. 8 marks
- b) With an aid of a diagram explain the phases for growth of bacteria. 12 marks

Question FIVE

Discuss the five key components National food control system 20 marks