**UNIVERSITY OF KABIANGA**

**UNIVERSITY EXAMINATIONS**

**2014/2015 ACADEMIC YEAR**

**THIRD YEAR FIRST SEMESTER EXAMINATION**

**FOR THE DEGREE OF BACHELOR OF SCIENCE IN MICROBIOLOGY**

**COURSE CODE: MIC 312**

**COURSE TITLE: FOOD AND DAIRY MICROBIOLOGY**

**DATE: 4/12/2014**

**TIME: 9.00 A.M-12.00 NOON**

**INSTRUCTIONS TO CANDIDATES:**

Answer **ALL** questions in **section A** and any other **FOUR** questions in **section B**.

Illustrate your answers with suitable diagrams where necessary.

**SECTION A; (30 MARKS)**

**Answer all questions.**

1. Explain what you understand by the terms; (3 marks)

 a. Minimum Infective Dose.

 b. Hazard Analysis Critical Control Point.

 c. Food poisoning

2. Distinguish between food intoxication and food infection. (3 marks)

3. Write short notes about the following;

 a. Aflatoxins. (2 marks)

 b. Botulism. (2 marks)

4. Explain significance of *Toxoplasma* *gondii* and *Trichinella* *spiralis* in Food Microbiology. (6 marks)

5. Explain the steps taken in surveillance for food-borne disease. (3 marks)

6. Summarize the key approaches to food preservation. (3 marks)

7. Describe basic mechanisms and indications of microbial food spoilage. (4 marks)

8. You are provided with an assortment of food remains some of which are suspected to have caused food poisoning in an institution. Explain how you would go about identifying the most likely foodborne pathogen. (3 marks)

**SECTION B; (40 MARKS)**

**Answer any four questions**

9. Discuss important steps that can be taken nationally to ensure food safety. (10 marks)

10. Citing examples, discuss any two industrial uses of microorganisms in food and dairy production. (10 marks)

11. Discuss foodborne illness associated with *Salmonella* and *Listeria* species. (10 marks)

12. Discuss the factors that favour the growth of microorganisms on food. (10 marks)

13. Design a food quality control plan for a food processing home industry. (10 marks)