



GWANDA STATE UNIVERSITY

Excellence through Esprit De Corps...

FACULTY OF LIFE SCIENCES.

BSc HONOURS ANIMAL SCIENCE DEGREE

LAS 4104 FOOD SAFETY AND FOOD QUALITY MANAGEMENT

FIRST SEMESTER EXAMINATION PAPER

NOVEMBER 2019

This examination paper consists of 3 pages

Time Allowed: 3 hours
Total Marks: 100
Special Requirements: N/A
Examiner's Name: Mr Dlamini D

INSTRUCTIONS.

1. Answer **ALL** questions in Section A.
2. Answer any **THREE** Questions in Section B. Each question in this section will carry 20 marks.
3. Do not open question paper until told to do so.

MARK ALLOCATION

QUESTION	MARKS
SECTION A	40
SECTION B	60
TOTAL ATTAINABLE MARKS	100

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Section A: Answer ALL questions

1. Define the following:
 - a. Food intoxication. [1]
 - b. Food spoilage. [1]
 - c. Pasteurization. [1]
 - d. Fermentation. [1]
 - e. Critical Control Point. [1]

2. Distinguish between the following:
 - a. Endotoxins and Exotoxins. [2]
 - b. Selective and Enrichment media. [2]
 - c. Sterilization and Disinfection. [2]
 - d. Food safety and Food quality. [2]
 - e. Food label and a Food safety audit. [2]

3. State if the following statements are TRUE or FALSE.
 - a. Taste, texture, and appearance are factors that may be evaluated when assigning a quality grade to an agricultural product. [1]
 - b. Microbes prefer foods that are highly acidic. [1]
 - c. There are no regulatory requirements governing the nutritional label found on food products. [1]
 - d. Food products are formulated to meet specific market requirements. [1]

4. The food safety audit system comprises **three** inter-related elements and each element is essential to the integrity of the system. List these elements. [3]

5. State and explain all the intrinsic and extrinsic factors that lead to food spoilage. [12]

6. For each category on the left in the table below, provide **two** examples on the right. [6]

Category	Examples
Types of taxonomic classification	
Antimicrobial substances	
Methods of food preservation	

Section B. Answer any THREE Questions

7. Highlight the difference[s] between sterilization and disinfection. Discuss some of the methods used in sterilization and disinfection using suitable examples. [20] [2]
8. In the process of discussing the 7 principles of Hazard Analysis and Critical Control Point (HACC) include an account on the **four** stages employed in its application. [20]
9. Discuss the key biological, physical and chemical factors that lead to the formation of a food borne hazard. [20]
10. Food restaurants and hotels are one of the critical areas in maintaining high food quality standards and regulations as they are at the heart of potential food poisoning outbreaks. Explore some of the regulations observed in these areas to ensure consumers are safe. [20]