

CHUKA



UNIVERSITY

**UNIVERSITY EXAMINATION
RESIT/SUPPLEMENTARY / SPECIAL EXAMINATIONS
EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE IN
FOOD SCIENCE AND TECHNOLOGY**

FOST 212: FOOD MICROBIOLOGY II

STREAMS: FOST

TIME: 2 HOURS

DAY/DATE: WEDNESDAY 11/08/2021

11.30 A.M - 1.30 A.M.

INSTRUCTIONS

- **Answer all questions in section A and any other two questions in section B**

SECTION A

1. Explain the role and significance of micro-organisms in foods (8 marks)
- 2a) Explain the differences between food poisoning and food spoilage (4 marks)
b) Describe different sampling plan techniques commonly applicable in food microbiology (6 marks)
- 3a) Outline characteristics of a good sanitary indicator for food safety (6 marks)
b) Explain the limitations of HACCP plan implementation in food industries (4 marks)
4. Viruses cannot be classified as true cells. Justify (2 marks)

SECTION B

- 5 a) Discuss extrinsic and intrinsic parameters of foods that affect microbial growth (15 marks)
b) Describe the structure of a bacteriophage and its relevance in food. (5 marks)
- 6 a) Explain different sources of microorganisms in food industries and suggest measures of controlling them (10 marks)

b) Discuss biochemical reactions that can be used in classification of bacteria in food (10 marks)

7a) Describe the procedure of a good sampling plan in microbial analysis (10 marks)

b) With a clear illustration explain the growth curve of *Lactobacillus bulgaricus* bacteria in dairy industry (10 marks)

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