

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**THIRD YEAR EXAMINATION FOR THE AWARD OF DEGREE OF
BACHELOR OF FOOD SCIENCE AND TECHNOLOGY**

FOST 211: FOOD MICROBIOLOGY 1

STREAMS:

TIME: 2 HOURS

DAY/DATE: WEDNESDAY 31/3/2021

2.30 PM – 4.30 PM

INSTRUCTIONS:

- Answer ALL Questions in Section A and any other two Questions in Section B.

SECTION A (30 MARKS)

1. Explain the differences between food infection and food intoxication and suggest their possible occurrences in food. [4 Marks]
- 2.a) Using a clear diagram, describe the adaptive features of microbial spores in food. [6 Marks]
- b) Viruses cannot be regarded as true cells. Justify this statement. [2 Marks]
- 3a) Outline five differences between Gram positive and Gram-negative bacteria. State two examples in each category. [6 Marks]
- b) Describe the precaution to be adhered to during preparation of inoculum and the media in the laboratory. [3 Marks]
- 4a) Describe five factors that may affect the growth of bread yeast in the bakery industry. [5 Marks]
- b) Discuss demerits and merits of using microorganisms in food industries. [4 Marks]

SECTION B (40 MARKS]

5a) Using a clear illustration, discuss the growth rate of yeast cells during production of beer in the brewing industry. [10 Marks]

b) Yeast and mod are classified under fungi kingdom, describe their major similarities and differences. [10 Marks]

6a) By highlighting specific examples, discuss the practical use of micro-organisms in the food industry. [10 Marks]

b) Describe the procedural technique that distinguishes the Gram positive and Gram-negative bacteria in food. [10 Marks]

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