

The Open University of Sri Lanka  
Faculty of Engineering Technology  
Department of Agricultural & Plantation Engineering



Study Programme	: Bachelor of Industrial Studies Honours (Agriculture)
Name of the Examination	: Final Examination
<b>Course Code and Title</b>	<b>: AGI5470 Food Microbiology</b>
Academic Year	: 2022/2023
Date	: 25 <sup>th</sup> February 2024
Time	: 13.30-16.30hrs
<b>Duration</b>	<b>: 3 hours</b>

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**SECTION 2: Answer any four (04) questions.**

- List the intrinsic and extrinsic factors that affect on microbial growth. (10 Marks)
  - Discuss how the above factors can be altered to assure the safety of a food product. (15 Marks)
- Briefly discuss the stages of biofilm formation. (15 Marks)
  - List the measures that can be used to control biofilm formation. (10 Marks)
- If you are the Manager of the food microbiology testing laboratory, what are the steps that you need to follow to produce standard microbiology test reports for a sample of minced chicken meat? (25 Marks)
- Write a short note on the following topics (12.5 Marks each)
  - Gram-negative bacteria are more resistant compared to controlling Gram-positive bacteria.
  - Beneficial effects and applications of probiotics in the food industry.
- List Novel methods used to identify the presence or absence of microorganisms in a given food sample. (10 Marks)
  - Briefly state why conventional methods are considered the gold standard method in the confirmation of identified microorganisms. (15 Marks)
- “Generally, the internal tissues of healthy slaughtered animals are free of bacteria. However, many microorganisms are found on fresh meat and poultry at retail level” Critically evaluate the given statement giving suitable examples. (25 Marks)