

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
Course Code and Title	: AGI5470 Food Microbiology
Academic Year	: 2023/2024
Date	: 24 th February 2025
Time	: 9.30 am-12.30 pm hrs
Duration	: 3 hours

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SECTION 2: Answer any four (04) questions.

- Discuss the world's historical developments in food microbiology. (15 Marks)
 - What are the rules of binomial nomenclature for microorganisms? (10 Marks)
- Explain why organic acids inhibit microbial growth more efficiently than strong acids giving suitable examples. (25 Marks)
- Discuss the process of biofilm formation. (15 Marks)
 - List the control measures that can be used in the food industry to remove biofilm. (10 Marks)
- What are the Standard Operation Procedures (SOP) to test a food sample received at the food testing laboratory and produce a standard microbiology test report? (25 mark)
- Write a short note on any **two (02)** of the following topics. (12.5 Marks each)
 - Enzyme-linked immunosorbent assay (ELISA) applied advanced microorganism detection method.
 - Gram-positive bacteria are easier to control compared to Gram-negative bacteria
 - Intrinsic and extrinsic factors that affect microbial growth
- "Use of Personal Protective Equipment (PPE), individual cleanliness and healthiness of individuals are important to assure food safety" Critically evaluate the statement by giving suitable examples. (25 Marks).