

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



Study Programme	: Bachelor of Industrial Studies Honours (Agriculture) Degree Programme
Name of the Examination	: Final Examination
Course Code and Title	: AGI3551 Agricultural Biology
Academic Year	: 2023/2024
Date	: 07 th February 2025
Time	: 09.30 - 12.30 hrs
Duration	: 3 hours

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SECTION 2: Answer any four (04) questions.

1. Explain the 'Power house' of the cells under following topics.
 - a. Function (15 marks).
 - b. Specific structural arrangements identified in the power house for above function/s mention in 1 a. (10 marks).
2.
 - a. Write the laws of Mendelian genetics (10 marks)
 - b. 'Incomplete Dominance shows a deviation from Mendelian genetics. Explain the above statement giving one (01) example (15 marks).
3. Write the short notes on the following
 - a. The causes of mutations in organisms (15 marks)
 - b. Recessive epistasis (10 marks)
4. "Plant breeding is essential for Agriculture Industry" Explain the statement (25 marks).
5. Explain the conditions necessary for photosynthesis (25 marks).
6. Explain two (02) of each topic given below (12.5 marks for each).
 - i. Explain the functions of cells or groups of cells.
 - ii. Structure and function of the ribosome
 - iii. Explain the reasons for evolution within a population
 - iv. Differentiate the respiration and photosynthesis