

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



Study Programme : Bachelor of Industrial Studies Honours
(Agriculture)
Name of the Examination: Final Examination
Course Code and Title : AGI5569 Molecular Biology and Biotechnology
Academic Year : 2022/2023
Date : 18th February 2024
Time : 09.30 - 12.30 hrs
Duration : 3 hours

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SECTION 2: Answer any four (04) questions.

1. a. Explain the Southern Blotting Technique (10 marks).
b. Compare and contrast Southern, Northern and Western blotting (15 marks).
2. Explain two (02) Polymerase Chain Reaction (PCR) based agriculturally important molecular marker applications (10 marks).
3. Explain the procedure of Agrobacterium mediated gene transfer and discuss the It's applications in crop improvement (25 marks).
4. Write an essay on biotechnology applications in food industry to improve the quality of the products (25 marks).
5. Write short notes on,
 - i. Advantages of Single Cell proteins over conventional proteins.
 - ii. Application of enzyme biotechnology in pulp and paper industry
 - iii. Enzyme Linked Immunosorbent Assay
 - iv. Protoplasts and its advantages. (25 marks)
6. Explain the micro propagation cycle of plants (25 marks).