



The Open University of Sri Lanka
 Faculty of Engineering Technology
 Degree in Industrial Studies (Agriculture)

Final Examination - 2012/2013

AEI5241 Agricultural Biotechnology

Date : 19 - 08 - 2013
Time : 1400 - 1700 hours
Duration : Three (03) hours

SECTION II

1. (i) Discuss the present situation of Agricultural Biotechnology industry in Sri Lanka.
 (ii) Critically evaluate the constrains and trends of developing Agricultural Biotechnology in Sri Lanka.
2. (i) Write the importance of following.
 - a. Genetic transfer and gene cloning
 - b. DNA libraries
 - c. Role of restriction enzymes
3. (i) Explain the steps of Polymerase Chain Reaction (PCR).
 (ii) Discuss the importance of PCR based molecular markers.
4. (i) Explain the use of fermentation technology in Biotechnology industry.
 (ii) Discuss the following
 - a. Requirements of bioreactors
 - b. Selection of micro organisms for fermentation
5. (i) Explain the applications of Biotechnology in following food industries giving two (02) examples for each category.
 - a. Dairy Products
 - b. Food supplements
 (ii) Explain the importance of "single cell proteins" as a food supplement.
6. Explain a micro propagation cycle for Anthurium to produce plantlets in industrial scale.