



The Open University of Sri Lanka
Faculty of Engineering Technology

Industrial Studies Program

Final Examination- 2007

AEI5241 Agricultural Biotechnology



Date : 28-04--2008
Time : 0930-1230 hrs

SECTION 2: Answer and four (04) questions

- (1) (a) Explain the process of DNA replication by giving illustrations at each step
(b) Briefly state on the role of enzymes DNA replication in genetic engineering.
- (2) (a) Write a note on various types of DNA transformation techniques in the field of Biotechnology.
(b) Briefly explain the southern blotting technique.
- (3) (a) Write a brief account on down stream processing.
(b) Discuss on nutritional value of single cells proteins.
- (4) Write short notes on the following
 - (i) Enzyme Linked Immunosorbent Assay (ELISA)
 - (ii) Humulin
 - (iii) Reverse transcription PCR (RT- PCR)
- (5) "Tissue culture techniques can be used in plant improvement" critically evaluate this statement giving suitable examples.
- (6) (a) Explain the conditions required for plant *in vitro* culture.
(b) Write a general account on haploid plant production.