



The Open University of Sri Lanka
Faculty of Engineering Technology
Final Examination- 2006
AEI5241 Agricultural Biotechnology

Date : 09-04--2007
Time : 0930-1230 hrs
Duration : Three (03) hours

SECTION II

- (1) (a) Discuss the importance of DNA libraries indicating the method of preparing different types of DNA libraries.
- (b) Describe three (03) different types of cloning vectors (Include detail diagrams in the answer).
- (2) Write short notes on the following. DNA transformation methods.
- (a) Electroporation
 - (b) Particle Bombardment
 - (c) Agrobacterium mediated gene transfer.
- (3) (a) Briefly explain the principle behind PCR reaction and its use in DNA finger printing.
- (b) Write a note on Enzyme Linked Immunosorbent Assay Technique used in immunological diagnosis.
- (4) Explain the concept of gene therapy with its advantages and disadvantages.
- (5) (a) Draw a detail flow sheet for general procedure of surface sterilization of plant material.
- (b) Write a brief account on factors affecting the success of plant tissue culture techniques.
- (6) (a) Discuss advantages and disadvantages of micropropagation.
- (b) Write a general account on "production of plant secondary metabolites" by means of tissue culture techniques.