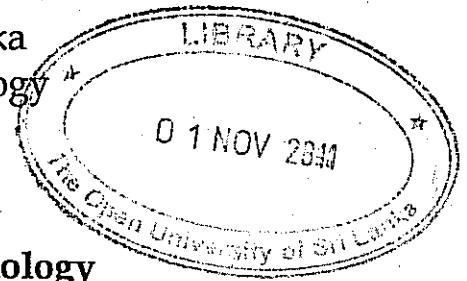




The Open University of Sri Lanka
Faculty of Engineering Technology
Industrial Studies Program
Final Examination- 2010/2011



AEI 5241 Agricultural Biotechnology

Date : 28-03-2011
Time : 1400 pm -1700 pm

SECTION II

- (1)
 - (a) "The relationship between the size of a DNA fragment and the distance it migrates in the gel in gel electrophoresis is logarithmic". Explain the above statement.
 - (b) Describe the southern blotting technique.
 - (c) Differentiate southern, Northern and Western blotting techniques.
- (2)
 - (a) Describe different nutrient culture media for culture of micro organisms in bioreactors.
 - (b) Explain the down stream processing of recovering products from fermentation.
- (3)
 - (a) Draw a flow chart and explain the yoghurt production.
 - (b) Explain the procedure of modifying following through biotechnology.
 - a) Post-harvest discoloration of vegetables and fruit
 - b) Increasing the Sweetness of fruits and vegetables.
- (4) Discuss the different applications of enzymes in biotechnology.
- (5)
 - (a) Draw a layout of a tissue culture laboratory.
 - (b) Explain the steps carry out in each section of the above laboratory.
- (6) Write short notes on any four (04) of the following.
 - i. Meristem culture.
 - ii. Germplasm preservation.
 - iii. cDNA libraries.
 - iv. Genetically modified organisms.
 - v. Vaccines produced through biotechnology