



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

Final Examination- 2014/2015

AEI5241 Agricultural biotechnology

Date : 01 - 08 - 2015
Time : 0930 - 1230 hours
Duration : Three (03) hours

SECTION II

1. a.) "Modern biotechnology is a necessity to satisfy the world increasing food demand". Comment on the statement.
b.) Discuss how application of biotechnology for plant improvements differs from traditional plant breeding.
2. a.) Explain the role of DNA and RNA in transcription and translation in protein synthesis.
b.) Describe the DNA libraries.
3. Discuss the applications of biotechnology in food industry.
4. Explain the conditions required for plant *in-vitro* Culturing.
5. Describe the plant micro propagation cycle in tissue culturing.
6. Write short notes on any four (04) of the following.
 1. Role of enzymes in DNA replication
 2. Principle of gel electrophoresis
 3. Draw backs in gene therapy technique
 4. Callus culture
 5. Somatic embryogenesis