



The Open University of Sri Lanka  
 Faculty of Engineering Technology  
 Bachelor of Industrial Studies Honours (Agriculture) Programme  
 Final Examination - 2015/2016

AEI6250 Advanced biotechnology

Date : 10 - 12 - 2016  
 Time : 0930 - 1230 hours  
 Duration : Three (03) hours

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**SECTION 2: Answer any four (04) questions.**

1. Write an essay on "Bioconversion of agricultural waste and food processing waste into value-added products".
2. Discuss biogas production on following topics.
  - a. Biogas inputs and their characteristics
  - b. Digestion of biogas
  - c. Facilitating and inhibiting factors in Biogas production process.
3.
  - i.) Explain the method/s of overcoming the crossing barriers of tissue culture techniques when apply for developing new varieties.
  - ii.) List the methods of conserving plant genetic resources and explain the utilization of plant genetic resources for crop improvements.
4.
  - i.) What is the basic principle of anther or pollen culture (haploid production)?
  - ii. Discuss the uses of haploids.
  - iii.) Explain the limitations of haploid breeding.
5. "Applications of Biotechnology effects on the biodiversity" Critically evaluate the statement.
6. Write short notes on any three (03) of the following. Each question may have 10 min.
  1. Biomass converting Plant species
  2. Advantages of Liquid Bio-fertilizer over conventional carrier based Bio-fertilizers
  3. Importance of Single Cell Culture.
  4. Use of biotechnology for producing better fish feeds.
  5. Concept of Bio village.