

**FACULTY OF SCIENCE**

**B.Sc. III – Year Examination, March / April 2015**

**Subject : Bio-Technology (General)**

**Paper – IV**

**Applications of Bio-Technology**

**Time : 3 hours**

**Max. Marks : 100**

***Note : Answer all questions. All questions carry equal marks.***

- 1 a) Write on transgenic animals and molecular pharming.  
OR  
b) What are different cell culture media and types of cultures?
- 2 a) Write about applications of recombinant DNA technology in agriculture.  
OR  
b) What is the role of different growth regulators in plant cell differentiation?
- 3 a) Write on primary and secondary metabolites produced by micro-organisms and their isolation.  
OR  
b) Explain various fermentative products of microbial origin.
- 4 a) How are municipal and industrial effluents treated?  
OR  
b) Discuss in detail about biopesticides.
- 5 Write short notes on any **Three** of the following :
  - a) Fermentative foods
  - b) Microbial hydrogen production
  - c) Induction of plant callus
  - d) Ex-vivo gene therapy
  - e) Ore leaching

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