

GUJARAT TECHNOLOGICAL UNIVERSITY
BE – SEMESTER–VIII • EXAMINATION – SUMMER • 2014

Subject Code: 180402**Date: 31-05-2014****Subject Name: Animal and Plant Biotechnology****Time: 10:30 am - 01:00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Describe various advantages of plant tissue culture techniques. **07**
(b) Describe various applications of animal tissue culture. **07**
- Q.2** (a) Comment on the laboratory organization for animal tissue culture. **07**
(b) Describe various sterilization techniques used in plant tissue culture. **07**
- OR**
- (b) Describe various applications of plant tissue culture. **07**
- Q.3** (a) Describe historical perspective of plant tissue culture. **07**
(b) Describe historical perspective of animal tissue culture. **07**
- OR**
- Q.3** (a) Explain the principle and procedure involved in plant tissue culture. **07**
(b) Explain the principle and procedure involved in animal tissue culture. **07**
- Q.4** (a) What is organogenesis? Explain the importance of organogenesis for plant tissue culture technique. **07**
(b) Comment on superovulation and embryo transfer technique. **07**
- OR**
- Q.4** (a) Describe the principle, procedure and importance of in vitro fertilization. **07**
(b) Comment on development and use of artificial skin. **07**
- Q.5** (a) Comment on the development and significance of transgenic mice. **07**
(b) Comment on the implications of targeted gene transfer technique. **07**
- OR**
- Q.5** (a) Justify the development and use of transgenic crops. **07**
(b) How will you develop salt-tolerant crop variety? **07**
