

Mid Semester Test: Feb-Mar. 2016

Bio-Technology

**GUJARAT NATIONAL LAW UNIVERSITY
GANDHINAGAR**Course: Bio-Technology
Semester-II (Batch: 2015-20)Mid Semester Test: Feb-Mar. 2016Date: 05th March 2016

Duration: 1 ½ hours

Max. Marks: 20

Instructions:

- Read the questions properly and write the answers in the given answer book.
- The respective marks for each question are indicated in-line.
- Do not write any thing on the question paper.
- Draw the diagrams only with pencil.
- Indicate correct question numbers in front of the answers.
- No questions or clarifications can be sought during the exam period, answer as it is, giving reason, if any.

Marks

Q.1 Answer the following.

(4x3
=12)

- What is Gene Knockout Technology? Briefly explain the steps involved in generating a Knockout Mouse.
- What is Gene Therapy? Why is Cystic Fibrosis a good candidate for Gene Therapy?
- Enlist any three applications of PCR.
- Enlist important features that a plasmid **must** have to allow the cloning and amplification of Gene in bacterial cells.

Q.2 Answer **any two** of the following.(2x4
=08)

- Describe different transfection methods successfully used in animals.
- Explain the steps involved in DNA fingerprinting by RFLP. Also add a note on forensic significance of mtDNA.
- Explain the steps involved in cloning of an organism.
