

2005 JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY

IV B.TECH. I SEMESTER REGULAR EXAMINATIONS
METABOLIC ENGINEERING
(BIO-TECHNOLOGY)

NOVEMBER -2005

TIME: 3 HOURS
MAX MARKS: 80

Answer any FIVE Questions
All Questions carry equal marks

1. Write short notes on:

- (a) Strain selection
- (b) Isozymes.

[16]

2. How can Metabolic pathways be genetically controlled with examples.

[16]

3. What is Bioconversion and describe the factors involved in Bioconversion?

[16]

4. Describe:

- (a) Concerted feed back regulation
- (b) Amino acid regulation.

[16]

5. Describe the factors contributing to catalytic efficiency of an enzyme.

[16]

6. Define Mutation and various modes of generating mutations in improving industrial biotechnology of an organism?

[16]

7. Compare and contrast direct and indirect fermentations citing amino acid synthesis as example?

[16]

8. Describe

- (a) Precursor effects in biosynthesis of secondary metabolites.
- (b) Producers of secondary metabolites.

[16]