

3rd semester M.Sc Degree examination, January 2011
Biotechnology
BTP-303 : Genetic Engineering
Time: 3hours Max.Marks:80

SECTION A (5*3)

Write brief notes on any five of the following

1. His-tag.
2. Ri-vectors.
3. Non radioactive labelling.
4. Colony hybridization.
5. Electromobility .
6. Poly adenylation.
7. Molecular markers.

SECTION B (4*5)

Answer any four of the following

8. Describe the features of various cloning hosts used in gene cloning.
9. Discuss the different enzymes used in molecular splicing.
10. Write a note on random primer labelling.
11. Explain the principles of pulse field gel electrophoresis and write its importance.
12. Outline the various steps involved in restriction digestion of DNA.
13. Write an account on preparation of competent cells of bacteria.

SECTION C (3*15)

Answer any three of the following

14. Explain in detail the various types of cloning vectors used in r-DNA technology.
15. Describe the principles , types and uses of radio active isotopes in the labelling of DNA.
16. Narrate the various methods for screening and selection of gene expression.
17. Describe the different blotting techniques and their application.
18. Give an account of agrobacterium mediated gene transfer in plants.