**B.Sc Microbiology**

**CC-14(Recombinant DNA Technology)**

**Model Question Paper**

Short Answer Questions

1. Write a short note on products of human therapeutic interest like insulin.
2. Brief about southern blotting.
3. What is DNA microarray analysis?
4. Write any three methods of DNA transformation.
5. Discuss properties of an ideal vector.
6. Explain colony PCR and its application.
7. What is restriction modification system.
8. Define vector. Explain plasmid as a cloning vector.
9. Write short note on pBR 322.
10. What is dot blot assay?
11. Write short note on DNA sequencing.
12. What are cosmids? Explain in brief.
13. What are human growth hormone. Explain their importance.
14. Explain the screening process of genomic and cDNA library.
15. Write short note on restriction endonucleases.
16. Write the function of kinase and ligase enzymes.
17. Write short note on cloning tools.
18. Write applications of Genomic and cDNA library.
19. What are DNA modifying enzymes. Give two examples with their function.
20. Write short note on RT-PCR.

Long answer questions

1. Explain PCR in detail.
2. Explain DNA sequencing by Sanger’s method.
3. Write down methods for preparation of genomic and cDNA library.
4. Define cDNA library. How cDNA library is constructed?
5. Discuss briefly about Bt transgenic-cotton and brinjal.
6. Discuss the method of colony hybridization.
7. Define western blotting. Discuss the process of western blotting.
8. What are restriction enzymes? Explain different types of restriction endonucleases and their applications.
9. What are cloning vectors. Explain structure and function of any two cloning vectors.
10. Discuss different types of DNA polymerase enzymes and their functions.