

D.K.M. COLLEGE FOR WOMEN (AUTONOMOUS), VELLORE-1**SEMESTER EXAMINATIONS****APRIL - 2018****15CBT4A****RECOMBINANT DNA TECHNOLOGY****Time : 3 Hours****Max. Marks : 75****SECTION – A (10 x 2 = 20)****Answer ALL the questions.****Define / Explain the following.**

1. Molecular scissors.
2. Ligases.
3. rDNA.
4. Plasmids.
5. Dideoxynucleotide.
6. Types of DNA sequencing.
7. Define F plasmid.
8. Cloning vectors.
9. Expand PCR.
10. Applications of RFLP.

SECTION – B (5 x 5 = 25)**Answer any FIVE of the following questions.**

11. Explain about the process of southern blotting.
12. Write short notes on Bacterial conjugation.
13. Explain the sanger - coulson method.
14. Describe the characteristics of plasmids.
15. Explain the genomic DNA library.
16. How recombinant DNAs are selected?
17. Explain the principle and applications of DNA Fingerprinting.
18. Write about the Electroporation.

SECTION – C (3 x 10 = 30)**Answer ALL the questions.**

19. (a) Write in detail about Type I, II & III restriction enzymes.

(Or)

- (b) Give an account on gene transfer method in rDNA technology using micro projectile and shot gun method.

20. (a) Explain Maxam - Gilbert method in detail.

(Or)

- (b) Comment on pBR322 and their functions.

21. (a) Explain briefly about cosmids and phagemids.

(Or)

- (b) Give a detailed account on different types of PCR and its application.