

D.K.M. COLLEGE FOR WOMEN (AUTONOMOUS), VELLORE-1**SEMESTER EXAMINATIONS****APRIL - 2016****CBT4A****RECOMBINANT DNA TECHNOLOGY****Time : 3 Hours****Max. Marks : 75****SECTION – A (10 x 2 = 20)****Answer ALL the questions.****Define / Explain the following.**

1. Linkers.
2. DNA ligase.
3. BAC.
4. Lipofection.
5. DNA probe.
6. DNA profiling.
7. Reporter gene.
8. Northern blotting.
9. Mutagenesis.
10. DNA sequencer.

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

11. Explain various modification enzymes involved in genetic engineering.
12. Describe pBR322.
13. Explain the use of agrobacterium to transfer a gene.
14. Write about non - radio labeling of DNA probes.
15. How to identify the product of cDNA clones?
16. Brief about plaque hybridisation.
17. How is artificial DNA synthesized?
18. Brief about insertion and deletion process of mutagenesis.

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

19. (a) Give an account on types and functions of DNA polymerase enzyme.
(Or)
(b) Describe the various methods of gene transfer.
20. (a) Explain DNA finger printing technology with suitable example.
(Or)
(b) Give a detailed account on polymerase chain reaction.
21. (a) Describe Northern blotting techniques and its applications.
(Or)
(b) Describe the Maxam and Gilbert method of DNA sequencing.