

D.K.M.COLLEGE FOR WOMEN (AUTONOMOUS), VELLORE-1.

III B.Sc Biochemistry

Semester : VI

Title of the paper: Biotechnology

Subject Code : 15CBC6C

SECTION-A 2 MARKS

1. Define biotechnology.
2. Define enzymes.
3. Write any two applications of microbial enzymes.
4. Give any two applications of immobilized enzymes.
5. Chimeric DNA
6. Totipotency
7. Explants
8. Callus
9. Vector
10. Plasmid
11. PBR 322
12. Ti plasmid.
13. Cosmid.
14. M₁₃ vector
15. Restriction endonuclease
16. DNA ligase and its role.
17. RNAase and its role.
18. Taq polymerase
19. Define vaccine.
20. Insulin and its role.
21. Role of growth hormone.

SECTION-B 5 MARKS

1. Explain the scope and applications of biotechnology
2. Write a note on application of enzymes synthesized by using microbes.
3. Write the application of immobilized enzyme.

4. Write a note on herbicide resistance plants.
5. Add a note on pest resistance plants.
6. Give a brief note on stress tolerance plants.
7. Write a short note on delayed fruit ripening.
8. Add a note on applications of plant tissue culture.
9. Explain Ri plasmid.
10. Describe the Ti plasmid vector.
11. Give a brief note on CDNA library.
12. Write a short note on Genomic library.
13. Describe expression vector.
14. Give the strategies adopted for the production of growth hormone.
15. How lymphokines are produced.
16. Explain the production methods for interferons.

SECTION-C 10 MARKS

1. How microbes are used in the production of enzymes.
2. Define immobilization of enzymes. How immobilized enzymes are synthesized.
3. Describe the steps involved in plant tissue culture.
4. Describe about plasmid vector in detail.
5. Explain phage vector.
6. Give a note PBR 322 vector.
7. Give a note on PSE 101 vector.
8. How cDNA library constructed and add a note on it.
9. Write a note on restriction endonucleases
10. Discuss the monoclonal production of antibodies and its application in detail.