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

I M.Sc Biochemistry **Semester : I**

Tile of the paper: ECOLOGY, EVOLUTION AND CELL DYNAMICS

Subject Code : 15CPBC1D

SECTION-A 6 MARKS

1. Organization of prokaryotes.
2. Organization of eukaryotes.
3. Difference between mitosis and meiosis.
4. Write a short note on microtubules.
5. Intracellular activity of microtubules.
6. Explain protein sorting.
7. Write in detail about Molecular Motors.
8. Explain the Method of cell disruption.
9. Write a note on Tissue slice technique.
10. Write a Short note on fluid fixation.
11. Write a short note on staining technique.
12. Explain in detail about Fixation of electron microscopy.
13. Write in detail biotic components of environment.
14. Write in detail about Abiotic components of environment.
15. Explain the Concept of niche.
16. Discuss Niche width.
17. Explain Niche overlap.
18. Difference between fundamental and realized niche
19. Explain R and K selection.
20. Write the Concept of oparin and Haldane.
21. Explain the Experiment of miller.
22. Write in detail about Evolution of prokaryotes.
23. Write in detail about Evolution of eukaryotes.

24. Explain Abiotic synthesis of organic monomer.
25. Explain Abiotic synthesis of organic polymer.
26. Brief an account on Molecular clock.
27. Explain Gene clock.
28. Write in detail about Convergent evolution.
29. Explain Co evolution.

SECTION-B 15 MARKS

1. Write in detail about Cell cycle.
2. Discuss Protein sorting and protein transport in detail.
3. Explain the Organization of prokaryote and eukaryotes.
4. Give the detailed note on Histopathology studies.
5. Discuss Cell fixation.
6. Explain in detail about Ecological succession.
7. Write in detail about various method of measuring niche overlap.
8. Discuss in detail Characteristics of population.
9. Describe the Concept of metapopulation.
10. Write in detail about Evolution of prokaryots and eukaryotes.
11. Write in detail about Evolution and its types.
12. Explain in detail about Geological timescale.