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

I M.Sc Biochemistry

Semester : II

Tile of the paper: PLANT AND MICROBIAL BIOCHEMISTRY

Subject Code : 15CPBC2D

SECTION-A 6 MARKS

1. Write a note on CAM metabolism.
2. Write about photorespiration.
3. Give the mechanism of glyoxalate cycle.
4. Explain nitrogen cycle.
5. Explain the biosynthesis, physiological effects of cytokinins.
6. Explain the biosynthesis, physiological effects of ABA.
7. Explain the biosynthesis, physiological effects of ethylene.
8. Explain the genetic manipulation of Nif genes.
9. Explain the defense mechanism of plants based on structural aspects.
10. Describe the way of defense mechanism of plants based on biochemical mechanism.
11. How microbes are classified based on nutritional requirements.
12. Write a note on anerobic respiration.
13. How transport mechanism takes place in bacterial cell by lactose permease system.
14. Write a note on production and recovery of penicillin from microbes.
15. Discuss the production and recovery of tetracyclin from microbes.

SECTION-B 15 MARKS

1. Describe the light reaction of photosynthesis.
2. Describe the dark reaction of photosynthesis.
3. Describe in detail about the symbiotic nitrogen fixation.

4. Describe in detail about the non-symbiotic nitrogen fixation.
5. Describe the biosynthesis, physiological effects of auxin hormone.
6. Illustrate the principles of plant disease control.
7. Explain the active transport mechanism in microbes.
8. Explain in detail about the medium and growth curve of microbes.
9. How the growth of microbes are measured.
10. Describe the mineral recovery process using microbes.
11. Outline the microbial degradation of xenobiotics using microbes.
12. Describe the sewage treatment using microbes.