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D.K.M. COLLEGE FOR WOMEN (AUTONOMOUS), VELLORE-1
SEMESTER EXAMINATIONS
APRIL – 2019

15CPBC2D

ELECTIVE : PLANT AND MICROBIAL BIOCHEMISTRY

Time : 3 Hours

Max. Marks: 75

SECTION – A (5 x 6 = 30)

Answer ALL the questions.

1. (a) Write notes on photorespiration.

(Or)

(b) Write the mechanism of glyoxalate cycle.

2. (a) Give the biochemistry of symbiotic and non - symbiotic nitrogen fixation.

(Or)

(b) Write about the genetic manipulation of Nif genes.

3. (a) Write short notes on the defence mechanism of plants.

(Or)

(b) Give an account on biochemistry and causative agent of plant disease.

4. (a) What are the nutritional classification of microbes?

(Or)

(b) Write notes on membrane protein lactose permease.

5. (a) Brief notes on microbes involved in biodegradation of sewage.

(Or)

(b) Give short notes on microbes involved in degradation of xenobiotic.

SECTION – B (3 x 15 = 45)

Answer any THREE of the following questions.

6. Give an account on light and dark reactions of photosynthesis.
7. Write the mode of action and physiological effects of auxins, gibberlins, cytokinins, ABA and ethylene.
8. Discuss in detail about the biosynthesis, distribution and biological functions of industrially important secondary metabolites from plant.
9. Explain in detail about the fermentation methods and its applications.
10. Explain about the microbes involved in production of antibiotic penicillin and tetracycline.

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