



CBCS SCHEME

15BT73

Seventh Semester B.E. Degree Examination, Dec.2019/Jan.2020

Plant Biotechnology

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. What is Haploid? Mention the method of producing haploids and explain Androgenesis. (08 Marks)
 b. Discuss the protoplast culture methods and add a note on methodology of Gybridization. (08 Marks)

OR

- 2 a. Describe virus mediated gene transfer in plants. (10 Marks)
 b. Write a note on Transgenic stability. (06 Marks)

Module-2

- 3 a. Write short note on : i) Protease inhibitors ii) α - Amylase inhibitors. (08 Marks)
 b. Explain development of virus resistant plants. (08 Marks)

OR

- 4 a. Write an account on fungal disease resistant plants. (10 Marks)
 b. Write a brief note on development of Drought resistant plants. (06 Marks)

Module-3

- 5 a. Define Phosphinothricin. Explain its mechanism of action and strategies to develop phosphinothricin resistant plants. (08 Marks)
 b. Describe the strategies of producing long shelf – life of fruits. (08 Marks)

OR

- 6 a. What is Molecular farming? Explain production of Biodegradable plastics. (08 Marks)
 b. Write an account on Metabolic engineering of fatty acids. (08 Marks)

Module-4

- 7 a. Discuss about diazotrophic microorganisms and add a note on mechanism of Nitrogen fixation. (12 Marks)
 b. Write a brief note on genetic engineering of Hydrogenase gene. (04 Marks)

OR

- 8 a. Describe molecular mechanism of Auxins and Gibberellins. (10 Marks)
 b. Write a brief account on Spingolipids. (06 Marks)

Module-5

- 9 a. Explain role of algae as Biofertilizers. (08 Marks)
 b. Discuss the importance of Mycorrhizae in agriculture and forestry. (08 Marks)

OR

- 10 a. Write a note on mass cultivation of marine microalgae for commercially valuable products. (10 Marks)
 b. Describe briefly microalgae as source of protein and feed. (06 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
 2. Any revealing of identification, appeal to evaluator and/or equations written eg. 42+8 = 50, will be treated as malpractice.