



10BT662

Sixth Semester B.E. Degree Examination, June/July 2019
Plant Biotechnology

Time: 3 hrs.

Max. Marks:100

Note: Answer FIVE full questions, selecting at least TWO questions from each part.

PART – A

- 1 a. Discuss in detail about composition and preparation of Tissue culture media. (10 Marks)
b. Write a note on : (i) Protoplast culture (ii) Cryopreservation. (10 Marks)
- 2 a. Discuss in detail on Agrobacterium mediated transformation and its applications. (10 Marks)
b. Write a note on: (i) Electroporation (ii) Transgenic plants. (10 Marks)
- 3 a. Discuss in detail about BT-genes and its applications. (10 Marks)
b. Elaborate on Transgenic Technology on developing Abiotic stress resistant plants. (10 Marks)
- 4 a. Discuss in detail about improving varieties using ACC synthase, Polygalacto Uranase. (10 Marks)
b. Give a detailed account on Biosafety regulations and gene patents. (10 Marks)

PART – B

- 5 a. Write a detailed account on production of industrial enzymes from plant sources. (10 Marks)
b. Discuss about Metabolic engineering of plants using Molecular farming. (10 Marks)
- 6 a. Define Biofertilizers and explain the process of Nitrogen fixation. (10 Marks)
b. Write a note on : (i) nif-genes (ii) nod-genes. (10 Marks)
- 7 a. What is signal transduction and explain the role of plant hormones? (10 Marks)
b. Discuss the molecular mechanisms of, (i) Gibberlins (ii) Abscisic acid. (10 Marks)
- 8 a. Discuss the importance of Mycorrhizae in Agriculture and Forestry. (10 Marks)
b. Give an account on Algae – as a source of feed, food, SCP and biofertilizer. (10 Marks)

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.