USN

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.***

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.

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 fixatron. **(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 Algue – as a source of feed, food, SCP and biofertilizer. **(10 Marks)**

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