

CBCS Scheme

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16/17BBT23

Second Semester M.Tech. Degree Examination, June/July 2018 Agricultural Biotechnology

Time: 3 hrs.

Max. Marks: 80

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

Module-1

- 1 a. Explain the Agro – Climatic zones and Cropping patterns of India. (08 Marks)
b. Write an essay on “Modern Agricultural Biotechnology”. (08 Marks)

OR

- 2 a. Discuss the impact of hybridization in Indian agriculture sector. (08 Marks)
b. Write short notes on: i) Mutation ii) Haploidy and Polyploidy. (08 Marks)

Module-2

- 3 a. Explain the various methodologies for the development of high performance and disease resistant variety of crops. (08 Marks)
b. Write short notes on :
i) Chitinase and fungal resistance ii) Agro bacterium. (08 Marks)

OR

- 4 a. Explain Salinity tolerance and draught resistance varieties. (08 Marks)
b. Essay on “Impact of BT – genes and Environment”. (08 Marks)

Module-3

- 5 a. Discuss about callus and cell suspension cultures. (08 Marks)
b. Detail note on role of tissue culture in rapid clonal propagations. (08 Marks)

OR

- 6 a. Infer and the haploid production and its advantages. (08 Marks)
b. Write short notes on : i) Protoplast technology ii) Somatic embryogenesis. (08 Marks)

Module-4

- 7 a. Write a detail note on the science behind delaying the softening and ripening by antisense RNA. (08 Marks)
b. Discuss the role of biotechnology for protection of cereals after harvesting. (08 Marks)

OR

- 8 a. Comment on the role of biotechnology for fortification taking transgenic sweet potato as an example. (08 Marks)
b. Explain the importance of biotechnology in production of bio fertilizers. (08 Marks)

Module-5

- 9 a. Write short notes on : i) Cartagena protocol ii) GM foods. (08 Marks)
b. Discuss the norms of Government of India on BT products. (08 Marks)

OR

- 10 a. Breakdown the guidelines to be followed for research on BT products. (08 Marks)
b. Recall the ethical issues associated with labeling and consumption of GM foods. (08 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.