



# CBCS SCHEME

18BBT23

Second Semester M.Tech. Degree Examination, June/July 2019  
**Agricultural Biotechnology**

Time: 3 hrs.

Max. Marks: 100

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

**Module-1**

- 1 a. Discuss about Agro-climatic zones and cropping patterns of India. (10 Marks)  
b. Write a note on : i) Haploidy ii) Polyploidy breeding. (10 Marks)

**OR**

- 2 a. Give an account on Green Revolution in India. (10 Marks)  
b. Write in detail on Modern Agricultural Biotechnology for Food security in India. (10 Marks)

**Module-2**

- 3 a. Discuss about gene constructs used for viral resistance. (10 Marks)  
b. Give an account on Agro-bacterium Medicated transformation. (10 Marks)

**OR**

- 4 a. Write a note on : i) Salinity tolerance ii) Drought Resistance. (10 Marks)  
b. Discuss on BT-gene integrated Pest Management. (10 Marks)

**Module-3**

- 5 a. Write in detail about various media preparations. (15 Marks)  
b. Give an account on Explants selection in plant tissue culture. (05 Marks)

**OR**

- 6 a. Write a note on ; i) Somatic embryogenesis ii) Somaclonal variation. (10 Marks)  
b. Give an account on Synthetic seeds. (10 Marks)

**Module-4**

- 7 a. What is Antisense RNA technology and discuss its applications. (10 Marks)  
b. Write in detail about post harvesting methods to protect agricultural yield using Biotechnology. (10 Marks)

**OR**

- 8 a. Write an account on importance of Bio-fertilizers in Agriculture. (10 Marks)  
b. Write a note on : i) Golden rice ii) Transgenic sweet potato. (10 Marks)

**Module-5**

- 9 a. Describe in detail about Ethical issues associated with GM foods. (10 Marks)  
b. Write a note on Cartagena protocol on bio-safety. (10 Marks)

**OR**

- 10 a. Discuss in detail of approval guidelines for Research in Agricultural Biotechnology. (10 Marks)  
b. Write an account on environmental aspects associated with applications of Biotechnology in Agriculture. (10 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.