

CBCS SCHEME

USN

--	--	--	--	--	--	--	--	--	--

18BT742

Seventh Semester B.E. Degree Examination, Dec.2023/Jan.2024 Agricultural Biotechnology

Time: 3 hrs.

Max. Marks: 100

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

Module-1

- 1 a. Write a brief note on Indian agricultural heritage and explain the significance of soil management in sustainable agriculture. (10 Marks)
b. Explain in detail various methods for breeding self pollinated crops. (10 Marks)

OR

- 2 a. Write a descriptive note on nutritional requirements of plants. Explain the mechanism of mineral uptake in plants. (10 Marks)
b. What is heterosis? Explain its genetic basis and significance in plant breeding. (10 Marks)

Module-2

- 3 a. Explain the importance of post harvest physiology. Discuss the technologies to control post harvest losses. (10 Marks)
b. Write descriptive note maturity indices. Explain the various stages of growth. (10 Marks)

OR

- 4 a. Define repending and explain the changes during repending. (10 Marks)
b. Explain respiration and transpiration loss methods to measure these losses. (10 Marks)

Module-3

- 5 a. Explain in detail the structure and function cry proteins. Highlight the mechanism of action. (10 Marks)
b. What are biotic stress explain in detail (10 Marks)

OR

- 6 a. What are abiotic stress explain in detail. (10 Marks)
b. Explain transgenic technology for the development of virus, bacterial and fungal resistance plants. (10 Marks)

Module-4

- 7 a. What is organic farming? Highlight its principle and scope in India. (12 Marks)
b. Explain the role of biotechnology in supporting organic farming. (08 Marks)

OR

- 8 a. Write a descriptive note on pest and disease management. (10 Marks)
b. Write short note on biological control of pest. (10 Marks)

Module-5

- 9 a. Explain the aims and scope of molecular farming. Add a note on high value pharmaceutical plant. (12 Marks)
b. Explain the safety and regulatory challenges of molecular farming. (08 Marks)

OR

- 10 a. Write short note on nif gene and nod gene. (10 Marks)
b. Write a descriptive note on phytohormones. (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.