

SIXTH SEMESTER B.Sc. DEGREE EXAMINATION, APRIL 2026
(Regular/Improvement/Supplementary)

BOTANY

GBOT6E02T: ADVANCES IN CROP IMPROVEMENT

Time: 2 Hours

Maximum Marks: 60

SECTION A: Answer the following questions. Each carries two marks.
(Ceiling 20 marks)

1. Write a short note on NBPGR.
2. Give examples for biofertilizers used in crop improvement.
3. Mention two international institutes of Plant Breeding.
4. What is mass selection? Comment on its merits and demerits.
5. Explain vertical and horizontal resistance in plants.
6. Write an account on heterobeltiosis.
7. Mention the significance of polyploids in crop improvement.
8. What is mutation breeding?
9. Briefly explain the achievements of IARI.
10. Write an account on the achievements of CPCRI.
11. Give an account on the origin of Rubber and Pepper.
12. Enlist the difficulties in breeding for drought resistance.

SECTION B: Answer the following questions. Each carries five marks.
(Ceiling 30 marks)

13. Give an account on the origin, genetics, breeding techniques and achievements in Rice.
14. Write an account on the breeding for drought resistance in plants.
15. Write the principles of breeding for disease resistance. Explain its methods and approaches.
16. Explain the principle of pure line and clonal selection. Mention the achievements.
17. What is the significance of heteroploidy in crop improvement? Mention its achievements and future prospects.
18. Briefly explain about salinity resistance and its significance.
19. Give an outline classification of Plant genetic resources.

SECTION C: Answer any one question. The question carries ten marks.

20. Write an essay on the breeding methods for insect resistance and its achievements. Mention the problems in breeding for insect resistance.
21. Write an account on the origin, genetics, breeding techniques and achievements in Coconut and Arecanut.

(1 × 10 = 10 Marks)