

D6BBT2005

Reg.No.....

Name:

SIXTH SEMESTER B.Sc. DEGREE EXAMINATION, APRIL 2023

(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. Briefly mention any breeding achievements of Rice.
2. Explain the genetic variability of Rubber.
3. Comment on any two breeding techniques of Coconut.
4. Write a brief account on the research activities of KFRI.
5. What is meant by insect tolerance?
6. Mention the important achievements of IISR.
7. Write a brief account on research activities of IARI.
8. Comment on segregating populations.
9. Describe abiotic stresses.
10. Write notes on osmotic concentration of drought resistant crops.
11. Comment on any mechanism of disease resistance.
12. What is allelochemics? Cite suitable example.

SECTION B: Answer the following questions. Each carries *five* marks.

(Ceiling 30 Marks)

13. Discuss about the activities involved in relation to Plant Genetic Resources.
14. Briefly explain the research activities and achievements of RRII & CTCRI.
15. Distinguish between heterosis and inbreeding depression.
16. Briefly explain about the genetics of nitrogen fixation.
17. Explain heteroploidy with special reference to crop improvement.
18. How can you combine drought resistance and high yield in a variety? Give example.
19. Distinguish between vertical and horizontal resistance.

SECTION C: Answer any 1 question. Each carries *ten* marks.

20. Write an essay on the genetic variability, floral biology and breeding techniques of Cashew & Pepper.
21. Explain in detail about salinity stress, salt affected soils and their management, ion exclusion, cellular compartmentation.

(1 x 10 = 10 Marks)