



K26P 1172

Reg. No. :

Name :

Second Semester M.Sc. Degree (C.B.C.S.S. – O.B.E. – Reg./Supple./Imp.)
Examination, April 2026
(2023 Admissions Onwards)
BOTANY
MSBOT02C08 : Genetics and Crop Improvement

Time : 3 Hours

Max. Marks : 60

PART – A

Answer **any five** questions. **Each** question carries **3** marks.

(5×3=15)

1. Define plant introduction. Write different steps involved in plant introduction.
2. Define gene mutation.
3. Which are different classes of seeds ?
4. Write a note on quantitative traits.
5. Define genetic recombination.
6. What is molecular marker assisted selection ?

PART – B

Answer **any three** questions. **Each** question carries **6** marks.

(3×6=18)

7. Explain the role of gene banks in crop improvement.
8. Describe the principles of hybrid seed production.
9. Discuss Hardy-Weinberg equilibrium and its significance.
10. Explain the process of somaclonal variation in plant breeding.
11. Describe the concept and importance of genetic linkage.

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PART – C

Answer **any three** questions. **Each** question carries **9** marks.

(3×9=27)

12. Explain different methods of selection used in plant breeding.
13. Discuss the importance of mutation breeding in crop improvement.
14. Describe the mechanism and applications of marker assisted breeding.
15. Explain genetic engineering techniques used in crop improvement.
16. Write an essay on plant quarantine and regulatory measures.

