K24P 1063

Reg. No. : .....

Name : .....

Second Semester M.Sc. Degree (C. B. C. S. S. – OBE – Regular) Examination, April 2024
(2023 Admission)
BOTANY
MSBOT02C08 : Genetics and Crop Improvement

Time : 3 Hours Max. Marks : 60

PART – A

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

1. Explain polygenic inheritance with example.
2. Comment on plant quarantine.
3. Distinguish between partial and complete linkage.
4. Compare bulk and pedigree methods of breeding.
5. Briefly describe lethal mutation.
6. Give the importance of floral biology in plant breeding. **(5×3=15)**

PART – B

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

7. Explain briefly the application of euploidy in crop improvement.
8. Give the applications of probability in genetics.
9. Briefly explain molecular markers.
10. What is somatic hybridization ? Explain its applications in plant breeding.
11. Add notes on sex linked inheritance in humans. **(3×6=18)**

P.T.O.

PART – C

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

12. Briefly explain the conservation and utilization of genetic resources for crop improvement.

13. Write an essay on transposons and its importance.

14. Explain briefly the different gene transfer techniques used in plants.

15. Briefly explain the importance of incompatibility and sterility in plant breeding.

16. What are mutagens ? Explain the procedure of mutation breeding and its achievements. **(3×9=27)**
