

TB206160W

Reg. No : .....

Name : .....

**B. Sc. DEGREE (C.B.C.S.) EXAMINATION, MARCH 2023**  
**(2020 Admission Regular, 2019, 2018 Admissions Supplementary)**  
**SEMESTER VI - CORE COURSE (BOTANY)**  
**BO6B09B18 - GENETICS, PLANT BREEDING AND HORTICULTURE**

Time : 3 Hours

Maximum Marks : 60

**Part A**

**I. Answer any Ten questions. Each question carries 1 mark**

**(10x1=10)**

1. Differentiate homozygous and heterozygous genotypes with examples.
2. What is co-dominance? Cite an example.
3. What are petite colonies in yeast?
4. Define interference.
5. With an example define sex influenced inheritance.
6. How do you define inbreeding depression?
7. Name any two chemical mutagens.
8. What is meant by emasulation?
9. Describe protected cropping.
10. What is meant by production horticulture?
11. Give an account on garden walks.
12. Give the binomial of a lawn grass.

**Part B**

**II. Answer any Six questions. Each question carries 5 marks**

**(6x5=30)**

13. What is epistasis? Explain with an example the genic interaction in dominant epistasis.
14. Discuss the gene interaction expressed in the comb pattern in fowls. Explain the F1 and F2 ratios.
15. Give an account on mitochondrial mutations in yeast and their inheritance pattern.
16. Discuss quantitative inheritance with an example.
17. Give an account on disease resistance breeding.
18. Describe floriculture and olericulture.
19. Explain the advantages of vegetative propagation.
20. Explain the advantages and setting up of kitchen garden.
21. Give an account on orchidarium.

**Part C**

**III. Answer any Two questions. Each question carries 10 marks**

**(2x10=20)**

22. What is crossing over? Illustrate the mechanism and types of crossing over. What is the significance of this phenomenon?
23. Explain the procedure for inter - varietal hybridisation.
24. Give an account on plant propagation through layering using diagrams.
25. Give an account on the features of green house and its use in horticulture.