



QP CODE: 21101120



21101120

Reg No :

Name :

B.Sc DEGREE (CBCS) EXAMINATION, APRIL 2021

Sixth Semester

CORE - BO6CRT09 - GENETICS, PLANT BREEDING AND HORTICULTURE

Common for B.Sc Botany Model I, B.Sc Botany Model II Food Microbiology, B.Sc Botany Model II Environmental Monitoring And Management, B.Sc Botany Model II Horticulture and Nursery Management, B.Sc Botany Model II Plant Biotechnology & B.Sc Botany and Biotechnology Model III Double Main

2017 Admission Onwards

FF85AA12

Time: 3 Hours

Max. Marks : 60

Part A

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. What is Epistasis?
2. What do you mean of map distance between two genes is 1cM?
3. What is the importance of pedigree analysis?
4. What is the concept of gene pool?
5. What is Primary Plant Introduction?
6. What is Clonal Selection?
7. What is Heterosis?
8. What is Golden Rice?
9. What are kharif crops?
10. What is the purpose of pruning?
11. What is a bonsai?
12. What is a green house?

(10×1=10)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*





13. Why did Mendel select *Pisum sativum* for his experiments?
14. Explain Mendel's principles of Independent Assortment and dihybrid cross?
15. Explain chromosome theory of sex determination with special reference to XX-XY mechanism.
16. What do you mean by quantitative inheritance? How is it different from Mendelian inheritance?
17. What is Emasculation? Explain various methods of Emasculation.
18. Differentiate between Mutation breeding and Polyploidy breeding?
19. What are the advantages and disadvantages of mist chamber?
20. Explain different methods used to analyse the seed quality.
21. Explain different budding methods used in vegetative propagation of plants?

(6×5=30)

Part C

Answer any two questions.

Each question carries 10 marks.

22. What is non-epistasis genetic Interaction ratio? Explain the inheritance of comb pattern in fowl using a Punnett square?
23. Give a detailed description of maternal effect with any two suitable examples.
24. Explain the objectives of Plant Introduction.
25. Explain different types of garden and its uses.

(2×10=20)

