

QP CODE: 20100450	Reg No	:	***************************************
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BSc DEGREE (CBCS) EXAMINATION, MARCH 2020

Sixth Semester

Core course - BO6CRT09 - GENETICS, PLANT BREEDING AND HORTICULTURE

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 Food Microbiology,B.Sc Botany Model II Plant Biotechnology,B.Sc Botany and Biotechnology Model III Double Main,B.Sc Botany Model II Horticulture and Nursery Management

2017 Admission Onwards

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Time: 3 Hours Maximum Marks :60

Part A

Answer any ten questions.

Each question carries 1 mark.

- 1. What is allele?
- 2. Give the significance of linkage.
- 3. What are autosomes?
- 4. Define Hardy Weinberg law.
- 5. What is a clone?
- 6. What is interspecific hybridization?
- 7. What is Inbreeding Depression?
- 8. What is Mutation Breeding?
- 9. What is turf culture?
- 10. Name a chemical used for testing seed viability.
- 11. What is terrarium?
- 12. What is the importance of wiring in Bonsai making?

 $(10 \times 1 = 10)$



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Part B

Answer any six questions.

Each question carries 5 marks.

- 13. Explain inheritance of fruit colour in summer squashes.
- 14. Describe the ABO blood group system.
- 15. Explain sex linked inheritance with an example of eye colour in Drosophila.
- 16. Briefly explain extrachromosomal inheritance with an example of mitochondrial mutations in yeast.
- 17. Explain nobilisation of Indian Cane?
- 18. Explain the application of meristem culture in plant breeding.
- 19. Describe any three irrigation methods with their advantages and diadvantages.
- 20. Explain the significance of pruning and training of plants.
- 21. What are the components of a potting mixture for stem cuttings and seed germination?

 $(6 \times 5 = 30)$

Part C

Answer any two questions.

Each question carries 10 marks.

- 22. Explain Mendel's laws and his experiment with pea plant?
- 23. Explain quantitative inheritance with any suitable example.
- 24. What are centres of Origin? Explain different of Origin proposed by Valilov.
- 25. Explain artificial methods of vegetative propagation.

 $(2 \times 10 = 20)$

