SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN (AUTONOMOUS)
(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)
Chromepet, Chennai — 600 044.
M.Sc. - END SEMESTER EXAMINATIONS NOVEMBER - 2022
SEMESTER - III
20PPBCT3006 - Genetics, Plant Breeding and Evolution

Total Duration : 2 Hrs 30 Mins. **Total Marks : 60**

Section A

Answer any **SIX** questions $(6 \times 5 = 30$ Marks)

1. Illustrate about three-point test cross method of gene mapping.
2. Describe in detail about the eukaryotic gene organizations.
3. Classify mutation.
4. Describe in detail on the role of polyploidy in plant breeding.
5. List the types of chemical mutagens in detail.
6. Compute notes on Darwin's theory of evolution.
7. Explain about Non-Mendelian Inheritance linked to a single gene on chromosomes.
8. Organize a brief note on prokaryotic gene structure.

Section B

Part A

Answer any **TWO** questions $(2 \times 10 = 20$ Marks)

9. Describe in detail about sex linked diseases.
10. Relate the importance of hybridization for crop improvement.
11. Examine about carcinogens and clastogens breifly.
12. Evaluate the importance of improved seed production and seed testing techniques for crop improvement.

Part B

Compulsory question $(1 \times 10 = 10$ Marks)

13. Justify the Lamark and De Vries, Modern synthetic theories of evolution.

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