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 EXAMINATION APRIL/NOV - 2021 SEMESTER - III

20PPBCT3006 - Genetics, Plant Breeding and Evolution

 Total Duration : 3 Hrs
 Total Marks : 75

 MCQ : 30 Mins
 MCQ : 15

 Descriptive : 2 Hrs.30 Mins
 Descriptive : 60

Section B

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

- 1. Give detail information about Mendelian and Non Mendelian inheritance.
- 2. Explain dominant and recessive sex linked genes.
- 3. Explain Regulation of gene action in Prokaryotes.
- 4. Give detail information about Lac Operon.
- 5. Explain about Mutagens and give suitable example.
- 6. What is green revolution?
- 7. Explain Polyploidy in Plant Breeding.
- 8. Discuses Modern synthetic theory.

Section C

Part A

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

- 9. Write an essay on Sex linked diseases and examples.
- 10. Prokaryotic and Eukaryotic gene organizations explain
- 11. Explain Types of Mutation and its Functions.
- 12. Give details in Principles involved in Plant Breeding and its importance for cash crops.

Part B

Compulsory question $(1 \times 10 = 10 \text{ Marks})$

13. What are the Methods for crop improvement?