20PPBCT3006

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.PBPBT - END SEMESTER EXAMINATIONS - NOV' 2024 SEMESTER - III **20PPBCT3006 - Genetics, Plant Breeding and evolution**

Total Duration : 2 Hrs. 30 Mins.

Total Marks : 60

Section B

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

- 1. Give a brief account on mendelian principles.
- 2. Write about the Regulation of gene action in Prokaryotes.
- 3. What are the causes of mutation?
- 4. Discuss the methods of crop improvement.
- 5. Write notes on De Vries theory of mutation.
- 6. Briefly discuss two theories of chiasma formation.
- 7. Explain polygenic inheritance.
- 8. Comment on Lamarckism.

Section C

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

9. Give a detail account on sex linkage and sex influenced characters.

- 10. Describe the Britten and Davidson model of gene regulation.
- 11. Explain the improved seed production and seedtesting techniques.
- 12. Discuss Darwin theory in evolution.

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

13. Give an elaborate account on modern synthetic theory.
