

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 - I

**20PBSET1001 - Statistical Genetics**

Total Duration : 2 Hrs 30 Mins.

Total Marks : 60

### **Section A**

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

1. Define linkage and crossing.
2. Explain about Hardy Weinberg equilibrium.
3. Classify the elementary aspects of the study of the human blood group.
4. Describe about different Types of gene action.
5. Determine the Application of Chi-square tests.
6. Prepare a note about matrix theory of random mapping with applications.
7. Describe about Multiple gene inheritance.
8. Distinguish between Selection methods and mating methods.

### **Section B**

#### **Part A**

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

9. Describe about genotype and phenotypes in detail.
10. Explain about Mendel's law of inheritance.
11. Compute the procedure involved in detection and estimation of linkage from back cross.
12. Determine about statistical problems in human genetic.

#### **Part B**

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

13. Distinguish between Qualitative and Quantitative traits.

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