

M.Sc. DEGREE EXAMINATION, NOVEMBER 2019
I Year I Semester
Statistical Genetics

Time : 3 Hours

Max.marks :75

Section A ($10 \times 2 = 20$) Marks

Answer any **TEN** questions

1. What are antigens and antibodies?
2. Describe Genotype.
3. Explain linkage.
4. What is law of segregation?
5. What is meant by independent assortment?
6. Define allele.
7. What is meant by Linked genes?
8. What is continuous trait?
9. What are the functions of Mitochondria?
10. Define Genotype and Phenotype.
11. What is meant by Pedigree analysis?
12. Define Allelic and non-allelic genes.

Section B ($5 \times 5 = 25$) Marks

Answer any **FIVE** questions

13. What are the significance of Mendel's selection of the experimental plant?
14. Explain Dominant alleles and codominant alleles.
15. Explain the Sex linked inheritance of Colour blindness in Man.
16. Write down the application of chi square test in genetics.
17. Distinguish between the Prokaryotic and Eukaryotic cells.
18. Discuss the two types of crossing over.
19. What is Multiple Gene inheritance? Explain with an example.

Section C ($3 \times 10 = 30$) Marks

Answer any **THREE** questions

20. Explain briefly about Chromosomes and Genes.
21. What is Linkage? Explain it in detail.
22. Describe Mendel's law of inheritance in detail.
23. Explain Hardy Weinberg equilibrium and its law and Evaluation.
24. Define Multiple Allele? Describe ABO blood group in detail.

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