



Contents

Preface v Introduction 1

I The Nature of the Genetic Material

The Structure and Duplication of the Genetic Material 9

2 Chromosome Duplication and Division 29

II The Transmission of the Genetic Material

13 The Segregation of Genes 47

Independent Assortment 66

5 Sex-linked Inheritance 79

viii Contents

6	The Linkage and Recombination of Genes 90
8	The Cytoplasm in Heredity 113 The Transmission of the Genetic Materia in Bacteria and Bacterial Viruses 127

- III The Action
 of the Genetic Material
- 9 Mutation 151
- 10 DNA, RNA, and Protein Synthesis 173
- 11 Genetic Regulation 187 Index 199