

Brief Contents

UNIT 1

The Foundations of
Microbiology

CHAPTER 1	Microorganisms and Microbiology
CHAPTER 2	Microbial Cell Structure and Function
CHAPTER 3	Microbial Metabolism
CHAPTER 4	Molecular Microbiology
CHAPTER 5	Microbial Growth and Control

UNIT 2

Genomics,
Genetics, and
Virology

CHAPTER 6	Microbial Genomics
CHAPTER 7	Metabolic Regulation
CHAPTER 8	Viruses and Virology
CHAPTER 9	Viral Genomes and Diversity
CHAPTER 10	Genetics of <i>Bacteria</i> and <i>Archaea</i>
CHAPTER 11	Genetic Engineering and Biotechnology

UNIT 3

Microbial
Diversity

CHAPTER 12	Microbial Evolution and Systematics
CHAPTER 13	Metabolic Diversity of Microorganisms
CHAPTER 14	Functional Diversity of <i>Bacteria</i>
CHAPTER 15	Diversity of <i>Bacteria</i>
CHAPTER 16	Diversity of <i>Archaea</i>
CHAPTER 17	Diversity of Eukaryotic Microorganisms

UNIT 4

Microbial Ecology
and Environmental
Microbiology

CHAPTER 18	Methods in Microbial Ecology
CHAPTER 19	Microbial Ecosystems
CHAPTER 20	Nutrient Cycles
CHAPTER 21	Microbiology of the Built Environment
CHAPTER 22	Microbial Symbioses

UNIT 5

Pathogenicity and
Immunology

CHAPTER 23	Microbial Interactions with Humans
CHAPTER 24	Immunity and Host Defense
CHAPTER 25	Immune Mechanisms
CHAPTER 26	Molecular Immunology
CHAPTER 27	Diagnostic Microbiology

UNIT 6

Infectious Diseases
and Their
Transmission

CHAPTER 28	Epidemiology
CHAPTER 29	Person-to-Person Bacterial and Viral Diseases
CHAPTER 30	Vectorborne and Soilborne Bacterial and Viral Diseases
CHAPTER 31	Water and Food as Vehicles of Bacterial Diseases
CHAPTER 32	Eukaryotic Pathogens: Fungal and Parasitic Diseases