

UNIT 1 CONCEPTS OF HEALTH AND DISEASE 1

- 1 Concepts of Health and Disease 2

UNIT 2 CELL FUNCTION AND GROWTH 13

- 2 Cell and Tissue Characteristics 14
- 3 Cellular Adaptation, Injury, and Death 49
- 4 Genetic Control of Cell Function and Inheritance 67
- 5 Genetic and Congenital Disorders 86
- 6 Neoplasia 106

UNIT 3 DISORDERS OF INTEGRATIVE FUNCTION 147

- 7 Stress and Adaptation 148
- 8 Disorders of Fluid, Electrolyte, and Acid-Base Balance 164

UNIT 4 INFECTION, INFLAMMATION, AND IMMUNITY 229

- 9 Inflammation, Tissue Repair, and Wound Healing 230
- 10 Mechanisms of Infectious Disease 254
- 11 Innate and Adaptive Immunity 281
- 12 Disorders of the Immune Response, Including HIV/AIDS 313

UNIT 5 DISORDERS OF NEURAL FUNCTION 355

- 13 Organization and Control of Neural Function 356
- 14 Somatosensory Function, Pain, Headache, and Temperature Regulation 397
- 15 Disorders of Motor Function 440
- 16 Disorders of Brain Function 479
- 17 Sleep and Sleep-Wake Disorders 516
- 18 Disorders of Thought, Emotion, and Memory 536

UNIT 6 DISORDERS OF SPECIAL SENSORY FUNCTION 559

- 19 Disorders of Visual Function 560
- 20 Disorders of Hearing and Vestibular Function 599

UNIT 7 DISORDERS OF THE HEMATOPOIETIC SYSTEM 623

- 21 Blood Cells and the Hematopoietic System 624
- 22 Disorders of Hemostasis 635
- 23 Disorders of Red Blood Cells 654
- 24 Disorders of White Blood Cells and Lymphoid Tissues 681

UNIT 8 DISORDERS OF CARDIOVASCULAR FUNCTION 705

- 25 Structure and Function of the Cardiovascular System 706
- 26 Disorders of Blood Flow and Blood Pressure Regulation 733
- 27 Disorders of Cardiac Function, and Heart Failure and Circulatory Shock 774
- 28 Disorders of Cardiac Conduction and Rhythm 857

UNIT 9 DISORDERS OF RESPIRATORY FUNCTION 879

- 29 Structure and Function of the Respiratory System 880
- 30 Respiratory Tract Infections, Neoplasms, and Childhood Disorders 912
- 31 Disorders of Ventilation and Gas Exchange 945

UNIT 10 DISORDERS OF RENAL FUNCTION 985

- 32 Structure and Function of the Kidney 986
- 33 Disorders of Renal Function 1007
- 34 Acute Kidney Injury and Chronic Kidney Disease 1039
- 35 Disorders of the Bladder and Lower Urinary Tract 1061

UNIT 11 DISORDERS OF GASTROINTESTINAL FUNCTION 1079

- 36 Structure and Function of the Gastrointestinal System 1080
- 37 Disorders of Gastrointestinal Function 1103
- 38 Disorders of Hepatobiliary and Exocrine Pancreas Function 1151
- 39 Alterations in Nutritional Status 1195

UNIT 12 DISORDERS OF ENDOCRINE FUNCTION 1217

- 40 Mechanisms of Endocrine Control 1218
- 41 Disorders of Endocrine Control of Growth and Metabolism 1235

UNIT 13 DISORDERS OF GENITOURINARY AND REPRODUCTIVE FUNCTION 1279

- 42 Structure and Function of the Male Genitourinary System 1281
- 43 Disorders of the Male Reproductive System 1294
- 44 Structure and Function of the Female Reproductive System 1317
- 45 Disorders of the Female Reproductive System 1335
- 46 Sexually Transmitted Infections 1373

UNIT 14 DISORDERS OF MUSCULOSKELETAL FUNCTION 1391

- 47 Structure and Function of the Musculoskeletal System 1392
- 48 Disorders of Musculoskeletal Function: Trauma, Infection, Neoplasms 1405
- 49 Disorders of Musculoskeletal Function: Developmental and Metabolic Disorders, Activity Intolerance, and Fatigue 1434
- 50 Disorders of Musculoskeletal Function: Rheumatic Disorders 1465

UNIT 15 DISORDERS OF INTEGUMENTARY FUNCTION 1495

- 51 Structure and Function of the Skin 1496
- 52 Disorders of Skin Integrity and Function 1512