Contents

Problems

Chapter 1	Cells and Genomes	1
Chapter 2	Cell Chemistry and Bioenergetics	11
Chapter 3	Proteins	31
Chapter 4	DNA, Chromosomes, and Genomes	53
Chapter 5	DNA Replication, Repair, and Recombination	77
Chapter 6	How Cells Read the Genome: From DNA to Protein	105
Chapter 7	Control of Gene Expression	135
Chapter 8	Analyzing Cells, Molecules, and Systems	167
Chapter 9	Visualizing Cells	197
Chapter 10	Membrane Structure	209
Chapter 11	Membrane Transport of Small Molecules and the Electrical Properties of Membranes	219
Chapter 12	Intracellular Compartments and Protein Sorting	237
Chapter 13	Intracellular Membrane Traffic	259
Chapter 14	Energy Conversion: Mitochondria and Chloroplasts	285
Chapter 15	Cell Signaling	307
Chapter 16	The Cytoskeleton	333
Chapter 17	The Cell Cycle	361
Chapter 18	Cell Death	387
Chapter 19	Cell Junctions and the Extracellular Matrix	393
Chapter 20	Cancer	415
Answers to Problems		435
Answers to Problems in <i>Molecular Biology of the Cell</i> , Sixth Edition		861
Credits		931
Index		935
Tables		963