

Applied Biochemistry for Nursing Students

Contents

<i>Preface</i>	<i>vii</i>
1. Carbohydrates.....	1
Digestion, Absorption, and Metabolism of Carbohydrates and Related Disorders	1
Regulation of Blood Glucose	27
Diabetes Mellitus.....	27
Investigations of Diabetes Mellitus.....	28
Hypoglycemia	32
2. Lipids.....	34
Fatty Acids: Definition, Classification.....	34
Digestion, Absorption, Metabolism of Lipids and Related Disorders	36
Lipid Absorption.....	39
Compounds Formed from Cholesterol	40
Ketone Bodies	41
Lipoproteins: Types and Functions	42
Lipid Profile.....	43
Atherosclerosis	43
3. Proteins.....	44
Classification of Amino Acids	44
Digestion, Absorption, Metabolism of Protein and Related Disorders	45
Biologically Important Compounds Synthesized from various Amino Acids.....	48
Inborn Errors of Amino Acid Metabolism of Aromatic Amino Acids	49
Plasma Protein: Types, Function and Normal Values.....	51

Causes of Proteinuria, Hypoproteinaemia, Hyper-gamma-globinemia	53
Principle of Electrophoresis, Normal and Abnormal Electro-phoretic Patterns	56
4. Clinical Enzymology	59
Isoenzymes: Definition and Properties	59
Enzymes of Diagnostic Importance in	60
a. Liver Diseases.....	60
b. Myocardial Infarction	61
c. Muscle Diseases	61
d. Bone Diseases.....	61
e. Prostate Cancer	61
5. Acid-Base Balance	62
pH, Regulation of Blood pH, Blood Gas Analysis.....	62
Acid Base Disorders	65
6. Heme Catabolism	67
Heme Degradation Pathway	69
Jaundice	71
7. Organ Function Tests.....	74
Renal.....	74
Liver	77
Thyroid	80
8. Immunochemistry.....	82
Structure and Functions of Immunoglobulin.....	82
Immunoassay: ELISA.....	85
9. Nursing Biochemistry Questions.....	87
