

## **CLINICAL BIOCHEMISTRY**

### **Unit 1**

Gastric function tests- hyper, hypo and achlorhydria. Liver function tests. Jaundice hemolytic, hepatic and obstructive jaundice. Renal function tests. Biochemical findings in nephritis and nephrotic syndrome. Normal and abnormal constituents of urine.

### **Unit 2**

Disorders of carbohydrate metabolism: Sugar level in normal blood-maintenance of blood sugar concentration- endocrine influence on carbohydrate metabolism, hypoglycemia, hyperglycemia, glycosuria, renal threshold value, diabetes mellitus classification, complications; Glucose tolerance test (GTT), diabetic coma, diabetic ketoacidosis, glycogen storage diseases, fructosuria, galactosemia and hypoglycemic agents.

### **Unit 3**

Disorders of lipid metabolism. Plasma lipoproteins- lipoproteinemias, lipid metabolism in liver and adipose tissue. Fatty liver. Hypo and hypercholesterolemia. Atherosclerosis.

### **Unit 4**

Disorders of amino acid metabolism. Plasma proteins in health and disease. Disorders of purine, pyrimidine and porphyrin metabolism. Hyperuricemia and gout. Lesch- Nyhan syndrome. Orotic aciduria, porphyrias.

### **Unit 5**

Disorders of endocrine system. Disorders of thyroid, pituitary, adrenal medulla, and sex hormones. Disturbances in blood clotting mechanisms- hemophilia and anemia. Complications of Acquired immune deficiency syndrome (AIDS)

### **References**

1. Applied Biochemistry of clinical disorders – Allan G. Gornall.
2. A clinical companion to Biochemical Studies – Victor Schwarz.
3. Biochemistry for Medical Students – Ambika Shanmugam.
4. Practical Clinical Biochemistry – Harold Varley.
5. Clinical Biochemistry in diagnosis and treatment. Mayne ELBS.