

Table of Specifications

PhD Entrance Test Pathology (Chemical Pathology)

Sr. No	Topic	MCQs
	Level of Difficulty	Application
1	Clinical Chemistry Pathophysiology- I including following topics: <ul style="list-style-type: none"> ○ Electrolytes and Acid Base Disorders ○ Liver Function Tests ○ Renal Function Tests 	10
2	Clinical Chemistry Pathophysiology- II including following topics: <ul style="list-style-type: none"> ○ Cardiac biomarkers ○ Lipid Disorders ○ Iron Disorders ○ Disorders of Bones ○ Others 	10
3	Basic Laboratory Principles <ul style="list-style-type: none"> ○ Quality Management ○ Laboratory Water ○ Basic Instrument Handling <ul style="list-style-type: none"> ● Centrifuge ● Water Bath ● Pipettes ● Glass ware ● Refrigerators ● Osmometers ● Analytical Balance ● pH Meter 	10
4	Analytical Techniques /Lab instruments <ul style="list-style-type: none"> ○ Optical Techniques ○ Electrochemistry ○ Electrophoresis ○ Lab Automation ○ ELISA ○ HPLC ○ GC/MS 	10
5	Special Clinical Chemistry Pathophysiology I including following topics: <ul style="list-style-type: none"> ○ Diabetes Mellitus ○ Thyroid Disorders ○ Parathyroid Disorders ○ Adrenal Disorders ○ Pituitary Disorders 	10
6	Special Clinical Chemistry Pathophysiology II including following topics: <ol style="list-style-type: none"> a. Tumour Markers b. Paediatric Metabolic Disorder c. Therapeutic Drug Monitoring d. Toxicology 	10

7	<p>Laboratory Management</p> <ul style="list-style-type: none"> ○ Clinical evaluation of methods ○ Establishment and use of reference values ○ Preanalytical variables and biological variation ○ Laboratory Information System 	10
8	<p>Molecular Biology</p> <ul style="list-style-type: none"> ○ DNA: Structure and Function ○ RNA: Structure and Function & Types ○ Protein: Structure and Function ○ DNA regulatory sequences and regulatory protein ○ DNA Replication, Damage and Repair ○ Transcription/ Translation in Prokaryotes& Eukaryotes 	10
9	<p>Techniques</p> <ul style="list-style-type: none"> ○ PCR types and procedure ○ DNA/RNA Extractions ○ Restriction Endonucleases ○ Recombinant DNA technology <p>Gel Electrophoresis</p>	05
10	<ul style="list-style-type: none"> ○ Research Methodology ○ Biostatistics/Analytical ○ Medical writing/Bioethics 	15
Total		100