



Rawalpindi Medical University

Table of Specifications

MPhil Entrance Exam

Chemical Pathology

Sr. No	Topic Level of Difficulty	MCQs Application
1.	General Pathology	10
2.	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
3.	Clinical Chemistry Pathophysiology- II including following topics: <ul style="list-style-type: none"> ○ Cardiac biomarkers ○ Lipid Disorders ○ Iron Disorders ○ Disorders of Bones ○ Others 	10
4.	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
5.	Analytical Techniques /Lab instruments <ul style="list-style-type: none"> ○ Optical Techniques ○ Electrochemistry ○ Electrophoresis ○ Lab Automation ○ ELISA 	5

	<ul style="list-style-type: none"> ○ HPLC ○ GC/MS 	
6.	Special Clinical Chemistry Pathophysiology I including following topics: <ul style="list-style-type: none"> ○ Diabetes Mellitus ○ Thyroid Disorders ○ Parathyroid Disorders ○ Adrenal Disorders ○ Pituitary Disorders 	5
7.	Laboratory Management <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.	Molecular Biology & Molecular Biology Techniques <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.	<ul style="list-style-type: none"> ○ Research Methodology ○ Biostatistics/Analytical ○ Medical writing/Bioethics 	10
10	<ul style="list-style-type: none"> ○ English 	10
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11	<ul style="list-style-type: none"> ○ Mathematics 	10
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	Total	100