



Subject-specific Entrance Test Table Of Specification PhD (Molecular Medicine)

S.#	Themes	Topics
1	Molecular Biology	Structure of DNA, RNA and Proteins
		Replication, transcription, and translation
		Cell signaling
		Concept of genome
		Cell cycle
2	Biochemistry	Enzymes and enzymes kinetics
		Simple and complex carbohydrates
		Cell membrane and extracellular matrix
		Vitamins
		Lipids
		Hormones
3	Physiology	Blood physiology
		Electrical properties of CVS
		Renal physiology (Basics of filtration and reabsorption)
		Muscle Physiology (contraction and relaxation)
		Basics of action potential
4	Pathology	Molecular basis of cancer
		Inflammation
		Types of mutations
		Genetic disorders
5.	Pharmacology	Pharmacodynamics and pharmacokinetics (basic concept)
		Factors effecting drug response
		Dose response curve
		Efficacy and potency
6.	Microbiology and Immunology	Innate and adaptive immune system
		Basics of bacteriology (Gram positive/Gram negative bacteria)
		Classification of viruses
		Diseases caused by bacteria