

# Syllabus for M. Sc in Human Physiology

## First Semester

Total marks 400

Papers	Group	Subject
Paper I 100 marks	A 50 marks	Molecular and Physicochemical interactions relevant to biology
	B 50 marks	Bioenergetics and Enzyme kinetics
Paper II 100 marks	A 50 marks	Biochemistry
	B 50 marks	Molecular Biology
Paper III 100 marks	A 50 marks	Cell Biology
	B 50 marks	Cell Biological Techniques
Paper IV (Practical) 100 marks	A 50 marks	Histology, Cellular kinetics, Cell Division, Histochemistry, Immunohistochemistry, Biophysics, Molecular Biology
	B 50 marks	Basic and Clinical Biochemistry

## Second Semester

Total marks 400

Papers	Group	Subject
Paper V 100 marks	A 50 marks	Biomembrane Physiology and Transport, Cell-Cell Communication
	B 50 marks	Molecular Techniques
Paper VI 100 marks	A 50 marks	Haematology and Immunology
	B 50 marks	Excretory Physiology, Integument and Thermoregulation
Paper VII 100 marks	A 50 marks	Cardiovascular Physiology, Haemodynamics and Respiratory Physiology
	B 50 marks	Pharmacology and Toxicology
Paper VIII (Practical) 100 marks	A 50 marks	Haematology, Digestive enzymes, slide identification, molecular techniques, virtual images of intra and intercellular activities
	B 50 marks	Cardiovascular Physiology and Respiratory Physiology.

## Third Semester

Total marks 400

Papers	Group	Subject
Paper IX 100 marks	A 50 marks	Nervous system and muscular Physiology
	B 50 marks	Endocrinology, Developmental Physiology, Reproductive Physiology
Paper X 100 marks	A 50 marks	Digestion, Nutrition and Growth
	B 50 marks	Sports, Exercise and Stress Physiology
Paper XI 100 marks	A 50 marks	Medical Microbiology and Molecular Immunology
	B 50 marks	Eukaryotic Gene Expression and Human Genetics
Paper XII (Practical) 100 marks	A 50 marks	Immunology, Pharmacology, Developmental biology, Endocrinology, Histology of endocrine glands, Microbiology.
	B 50 marks	Sports and Exercise Physiology, Anthropometry, Inheritance Biology, Genetics

### Fourth Semester

Total marks 400

Papers	Group	Subject
Paper XIII 100 marks	A 50 marks	Special Senses, Brain and Behavior
	B 50 marks	Stem cell biology, Nano-technology
Paper XIV 100 marks	A 50 marks	Research Methodology and Statistics
	B 50 marks	Computer Application and Bioinformatics
Paper XV 100 marks	A 50 marks	Special Paper
	B 50 marks	Special Paper
Paper XVI (Practical) 100 marks	A 50 marks	Special Paper
	B 50 marks	Special Paper