

Paper I:

Basic Immunology (MLS)

Distribution of MCQs and SEQs with respect to the importance of topics

Topics	No. of Lectures	No. of MCQ,s	No. of SEQ,s
Innate immunity and inflammation Components of the non-specific immune system <ul style="list-style-type: none"> • Mechanical barriers • Chemical and biochemical barriers • Biology of NK cells, Polymorphonuclear phagocytes, macrophages, and other major cellular components in the innate immunity • Phagocytosis • Opsonization • Receptors and molecules: Cytokines and receptors, chemokines and receptors Pathogen recognition; Toll like receptors, Fc receptor • Antigen • Complement system, pathways, and regulation <ul style="list-style-type: none"> • Molecular and cellular mechanisms involved in inflammation 	12	30	3
Specific acquired immunity <ul style="list-style-type: none"> • B Cells, Immunoglobulin's (Ig) and humoral immune response • T cells and cell-mediated immune response • The lymphoid system and structure and function of MHC molecules • Molecular basis of immune recognition and tolerance 	10 10 10 10	14 14 12 10	1 1 1 1
Total	60	80	7
Total marks		Total time (estimated)	
MCQs	SEQs	MCQs	SEQs
80	7	96 minutes	84 minutes

Paper II: Clinical and Applied Immunology (MLS)

Distribution of MCQs, and SEQs with respect to the importance of topics

Topics	No. of lectures	No. of MCQ,s	No. of SEQ,s
a. Clinical Immunology <ul style="list-style-type: none"> • Infections and immunity, Hypersensitivity, Transplantation • Autoimmunity, Immunodeficiency, Complement disorders • Tumor Immunology and Vaccines 	20	30	3
b. Applied and research <ul style="list-style-type: none"> • Production of Chimeric and Hybrid Monoclonal Antibodies • Antibody Engineering, Antibody Labelling and Coating of micro-wells, Coating of Ab/Ag to particles • Monoclonal antibodies, applications in biomedical research, clinical diagnosis and treatment • Role of the Major Histocompatibility Complex in Mate Choice • Methods of vaccine production, Animal Models in Immunology 	15	15	2
c. Diagnostic immunology <ul style="list-style-type: none"> • Quality control • Agglutination, ELISA, RIA, Immunoélectrophorèses, Western blotting, PCR, RNAi, microarray, Electrophoresis • Chemiluminescence, Immunofluorescence, Immunochemistry, Flow cytometry, Tissue culture techniques • Evaluation of Complement function, cellular immunity, and Humoral immunity, Allergy Diagnosis • HLA Typing, MLR, Immunophenotyping of leukemia's 	25	35	2
Total	60	80	7
Total marks		Total time (estimated)	
MCQs	SEQs	MCQs	SEQs
80	7	96 minutes	84 minutes