

Core Course – VI (CC) Immunology

UNIT – I

Introduction: Terminologies – History of Immunology – Immunohematology, Blood groups, Blood transfusion – Rh – incompatibilities – immunity – types of immunity – innate and acquired.

UNIT – II

Immune systems: Anatomy of lympho- reticular system – Primary lymphoid organ. Secondary lymphoid tissue – cells of the immune system – detailed aspects of T and B cells – receptors – activation and function.

UNIT – III

Antigens: Types, properties, haptanes – adjuvants – vaccines – types –toxids antitoxins, Immunoglobulins – structure types and properties. Theories of antibody production.

UNIT – IV

Antigen – antibody reactions – in vitro methods; Agglutination – Precipitation, Complement fixation, Immunofluorescence, ELISA, RIA, in vivo methods; Skin tests – immune complex tissue demonstrations.

UNIT – V

Hypersensitivity reactions – antibody mediated, Type I anaphylaxis, Type II – Antibody dependent cell cytotoxicity, Type III – immune complex reactions – respective diseases and immunologic methods of diagnosis – cell mediated immune responses – Lymphokines, Cytokines. Type IV – Hypersensitivity reactions, MHC and transplanation.

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