Principle paper BT 103 Immunology

Section I

Unit 1

1.1. Overview of the immune system: innate and adaptive immunity, cells and organs of immune system.
1.2. Antigens and their properties, epitope, paratope and hapetns.
1.3. Structure of immunoglobulin, isotopes of immu noglobulins
1.4. MHc molecules and BCR, TCR and other members of immunoglobulin super family.

Unit 2

2.1. Complement pathways
2.2. T cell development
2.3. B cell development
2.4. Cytokines and their functions
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Section II

Unit 3

3.1. Hypersencitivity and its types.
3.2. Autoimmunity.
3.3. Immunity to infectious agents
3.4. Tumor immunology.

Unit 4

4.1. Techniques based upon antigen antibody interactions
4.2. Advance methods based upon antigen antibody interaction and their applications.
4.3. Hybridoma technology and production of monoclonal antibodies;
4.4. Applications of monoclonal antibodies.

References:

1. Essential Immunology: Ivan Roitt.
2. Kuby Immunology: Goldsby, Kindt and Osborne.
3. Immunology : Roitt, Brostoff, Mole
4. Introductory Immunology : Huw Davies