

**SARDAR PATEL UNIVERSITY**  
**Programme & Subject: B.Sc (Bio Chemistry)**  
**Semester: VI**  
**Syllabus with Effect from: November-2013**

<b>Paper Code: US06CBCH05</b>	<b>Total Credit: 3</b>
<b>Title Of Paper: Immunology</b>	

Unit	Description in detail	Weightage (%)
<b>I</b>	<b>Introduction to Immunology</b> Introduction to infection, sources of infection, methods of transmission of infection, Microbial pathogenicity Immunity – innate and acquired immune response Complements properties & function, complements pathway. Lymphocytes - primary & secondary lymphoid organ	<b>25%</b>
<b>II</b>	<b>Serological Reaction</b> Antigen & antibody - Essential feature of antigen, Biology classes of antigens. Antibody (immunoglobulin) - structure, properties & types, Introduction & general feature of antigen - antibody reaction, measurement of antigen & antibody. Precipitation reaction, application of precipitation reaction in disease and diagnosis, agglutination reaction, application of agglutination reaction. Complement fixation test, Immunofluorescence, Radioimmunoassay, ELISA. AIDS	<b>25%</b>
<b>III</b>	<b>Mhc &amp; Anti-Body Diversity</b> Major histocompatibility complex- organization of class I, II and III and their functions. Molecular basis of antibody diversity. Immunology of transplantation - classification of transplantation, allograft reaction, mechanism of allograft rejection. Immunology of malignancy, tumour antigens, immune response in malignancy, Cancer.	<b>25%</b>
<b>IV</b>	<b>Hypersensitivity &amp; Vaccination.</b> Hypersensitivity: types I, II, III & IV. Auto immunity -introduction, mechanism of autoimmunization, name of Various autoimmune diseases, Rheumatoid arthritis in Detail. Vaccines & Vaccination: - types of immunization - passive & active, Routes of administration, Vaccination schedule.	<b>25%</b>

**Basic Text & Reference Books:**

- Immunology by Kubey.
- Medical microbiology by Anantnarayan.
- Immunology by Roit, Male, 6<sup>th</sup> Edn.

