

Curriculum plan (Odd Semester 2024-25)

Teacher Name: Dr. K. Vandana Rani

Paper name: Zoo DSC-13: Principles of Immunology (NEP)

Class type: Theory

Paper shared with: NA

Unit to be taken	Allocated lectures	Month wise schedule to be followed	Tests/ Assignments/ Revision/ Presentations etc
Unit 1: Overview of the Immune system i) Early theories of immunology, clonal selection theory. ii) Innate immunity: Components & defensive barriers of innate immunity, iii) Adaptive immune system: Components and attributes of acquired immunity, iv) Humoral and cellular mediated immunity, v) active and passive immunity, vi) primary and secondary cellular response,	6	06/08/202 to 027/08/2024	
Unit 2: Antigen and Immunoglobulins i) Antigens and immunogens, ii) antigenicity and immunogenicity, iii) Factors affecting immunogenicity, iv) Antigenic determinants and its properties (B and T cell epitopes), v) Adjuvants and haptens. Immunoglobulins vi) Structure, different classes and function of antibodies, vii) Antigenic determinants on immunoglobulins, viii) Production and applications of monoclonal antibodies.	10	29/08/2023 - 01/10/2023	Assignments/ Presentation
Unit 3: MHC and Antigen Presentation i) Structure and Functions of MHC (MHC-I & MHC-II) ii) Endogenous and Exogenous pathways of Antigen processing and presentation	4	03/10/2024- 15/10/2024	Test
Unit 4: Complement System and Cytokines: i) Pathways of complement activation and biological consequences of complement activation. ii) Basic Properties and Functions Cytokines	3	22/10/2024 - 5/11/2024	
Unit 5: Immune system in Health and Diseases i) Vaccines and their Types ii) Gell and Coomb's Classification of Hypersensitivity iii) Autoimmunity and Immunodeficiency with Suitable examples	7	12/11/2024 - 28/11/2024	Revision

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Class type: Practical

Paper shared with: NA

Unit to be taken	Allocated lectures	Month wise schedule to be followed (G1)	Tests/Assignments/ Revision/ Presentations etc
1. Demonstration of Lymphoid Organ	4	02.08.23/9.08.24	
2. Histological Study of Spleen, Thymus and Lymph Nodes through Slides/ Photographs	4	16.08.24/23.09.24	
3. Preparation of stained blood film to study various types of blood Cells	4	30.08.24/6.09.24	Presentation
4. Ouchterlony's Double immuno diffusion method	4	13.09.24/20.09.24	
5. ABO blood group Determination	4	27.09.24/04.10.24	
7. Demonstration of i) ELISA & ii) Immunoelectrophoresis iii) FACS iv)RIA	4each	11.10.24 18.10.24 25.10.2024 8.11.2024	
Repeat		22/11/24/29.11.24	Revision/ File Evaluation

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