

ZOOLOGY SYLLABUS FOR VI SEMESTER

W.E.F. 2017-18

ZOOLOGY -ELECTIVE PAPER:VII-(A)

IMMUNOLOGY

Periods:60

Max. Marks:100

Unit - I

1.1 Overview of Immune system App. Zoo (156 page)

- ✓ 1.1.1 Introduction to basic concepts in Immunology
- ✓ 1.1.2 Innate and adaptive immunity

1.2 Cells and organs of Immune system

- 1.2.1 Cells of immune system (Macrophages & Natural killer cells, B-cells, T-cells, Dendritic cells & phagocytes, Granulocytes)
- 1.2.2 Organs of immune system (Lymphoid organs & Bone marrow, lymph nodes)

GALT, BALT, MALT

Unit - II

Spleen

2.1 Antigens

- 2.1.1 Basic properties of antigens
- 2.1.2 B and T cell epitopes, haptens and adjuvants
- 2.1.3 Factors influencing immunogenicity

Unit - III

3.1 Antibodies

- 3.1.1 Structure of antibody
- 3.1.2 Classes and functions of antibodies
- 3.1.3 Monoclonal antibodies

Unit - IV

4.1 Working of Immune system

- 4.1.1 Structure and functions of major histocompatibility complexes - MHC-I & MHC-II & Graf
- 4.1.2 Exogenous and Endogenous pathways of antigen presentation and processing

Unit - V

5.1 Immune system in health and disease - App. Zoo (174 page)

- 5.1.1 Classification and brief description of various types of hyper sensitivities

5.2 Vaccines

- 5.2.1 General introduction to vaccines

- 5.2.2 Types of vaccines - Live - attenuated vaccines

- Inactivated vaccines

- Toxoids

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- Subunit vaccines

ZOOLOGY PRACTICAL SYLLABUS FOR VI SEMESTER

ZOOLOGY - ELECTIVE PAPER - VII-(A)

IMMUNOLOGY

Periods: 24

Max. Marks: 50

1. Demonstration of lymphoid organs (as per UGC guidelines)
- ✓ 2. Histological study of spleen, thymus and lymph nodes (through prepared slides)
3. Blood group determination *APP. ZOO (127 PAGE)*
4. Demonstration of
 - a. ELISA
 - b. Immunoelectrophoresis

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