

Unique paper Code: 32237909
Name of the paper: Immunology- (DSE for Honours)
Name of the Course: B.Sc. (H) Zoology- **LOCF**
Semester: Semester V
Duration: 3 Hours
Maximum Marks: 75

Instructions for Candidates

1. Write your Roll No., Name of the paper, Course, Semester, and Date of examination on the first page of answer sheet.
2. Attempt **ANY FOUR** questions. All questions carry equal marks.
3. Draw well labelled diagrams wherever necessary.

- Q1. Immunoglobulins are glycoproteins, therefore can act as potential immunogens to induce antibody response against themselves. Explain this statement describing different antigenic determinants present on immunoglobulins. 18.75
- Q2. "Recognition of antigen by the innate immune system leads to an effective immune response" - Justify this statement by describing the difference between innate immune response from adaptive immune response and by illustrating different barriers in innate immunity. 18.75
- Q3. Elaborate the different pathways used by the immune system for processing exogenous and endogenous antigens. Give suitable diagrams. 18.75
- Q4. The process of formation of cellular components of blood by pluripotent stem cells begins early in the embryo and continues up to the death of an individual. Discuss the process and explain the differentiation of stem cells. 18.75
- Q5. The binding of antigenic determinant to TCR or BCR is dependent on its properties. Discuss these properties that ensure effective binding in both cases. 18.75
- Q6. Explain the pathogenesis of autoimmune diseases and their treatment. Give brief account of autoimmunity against self-antigens unique to an organ/tissue or against range of antigens in different organs. Substantiate your answer with suitable examples. 18.75