

Mode of Examination: Online

Unique Paper Code	: XXXXXXXX
Name of the Paper	: Immunology
Name of the Course	: B.Sc. (P) Life Sciences
Semester	: VI (CBCS)
Duration	: 2 hrs
Maximum marks	: 75

Instruction for Students

1. Write your Roll No., Name of the paper, Course, Semester, and Date of examination on the first page of answer sheet.
2. Please make diagram to support your explanation wherever necessary.
3. Attempt **ANY FOUR** questions. All questions carry equal marks.

Questions

1. Differentiate between innate and adaptive immunity. Although categorised, but innate immunity always complements the adaptive immunity and vice-versa. Illustrate four immunological events to prove such synchrony and complementation.
(Marks: 18.75)
2. How does hybridoma technology is employed to produce monoclonal antibody of requisite specificity. Explain the fact that advent of hybridoma technology has truly revolutionized the preclinical and clinical research as well as proving to be boon for cancer therapy.
(Marks: 18.75)
3. Explain the exogenous and endogenous pathways of antigen processing and presentation. How do these two processing and presentation pathways keep us safe from extracellular as well intracellular pathogens by activating T-lymphocytes?
(Marks: 18.75)
4. Although each complement pathways require specific triggers and molecular players but eventually, they all converge at a point, creating MAC (membrane attack complex) with a sole purpose of destroying target cells.
(Marks: 18.75)
5. Why does an allergic person not show the allergic response during the very first exposure (life's first) but often during second and subsequent exposure to allergen? What would happen if serum fraction from an allergic person was injected to a non-allergic person followed by exposure of later to same allergen?
(Marks: 18.75)

6. Explain various types of vaccines already available in the market as well as well as those in clinical trial with their respective merits and demerits. Mention certain conditions in which we need passive immunization over active immunization despite that fact that later provides long term immunity. *(Marks: 18.75)*

Open Book Exam [Model Paper]