

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 2023  
(Fourth Semester)

Branch - **BIOCHEMISTRY**

**BASICS OF IMMUNOLOGY**

Time: Three Hours

Maximum: 50 Marks

**SECTION-A (5 Marks)**

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

1. Which of these immune cells are able to quickly respond post any subsequent encounter with the same antigen?  
(i) Helper T cells                      (ii) Memory cells  
(iii) Plasma cells                        (iv) basophil
2. Which of the following are phagocytic cells derived from monocytes?  
(i) Neutrophils                          (ii) Mast cells  
(iii) NK cells                              (iv) Macrophages
3. Name the class of immunoglobulin which takes part in hypersensitivity reaction?  
(i) IgG                                        (ii) IgE  
(iii) IgA                                      (iv) IgM
4. Some of the activated B-cells lead to the formation of short-lived \_\_\_\_\_.  
(i) Plasma cells                          (ii) Evanescent waves  
(iii) Memory cells                        (iv) Thymus cells
5. The transfer of individuals own tissue to another part of the body is called.  
(i) Autograft                                (ii) Xenograft  
(iii) Allograft                                (iv) Syngeneic graft

**SECTION - B (15 Marks)**

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a. Compare innate and acquired immunity.  
OR  
b. Explain the mechanism of Antigenicity.
- 7 a. Elaborate the functions of neutrophils.  
OR  
b. Explain the mechanism of action of cytokines.
- 8 a. Outline the functions of immunoglobulins.  
OR  
b. Explain the delayed hypersensitivity.

Cont...

- 9 a Compare the myelomas and hybridomas.  
OR  
b Explain the role of complement components.

- 10 a Explain the term vaccines.  
OR  
b Elaborate the autoimmunity.

**SECTION -C (30 Marks)**

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a Elaborate the primary and secondary lymphoid organs.  
OR  
b Discuss the immunogenicity and the factors affecting immunogenicity.
- 12 a Elaborate the structure and functions of various eosinophils, basophils and monocytes.  
OR  
b Discuss the structure and functions of NK Cells.
- 13 a Explain the properties of different types of immunoglobulins.  
OR  
b Discuss the antigen-antibody interactions.
- 14 a Explain the clonal selection theory.  
OR  
b Elaborate the principle and applications of immunoelectrophoresis technique.
- 15 a Discuss the graft rejection.  
OR  
b Explain the types of immunization.

Z-Z-Z

END