

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2024
(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.Name the surface of a large antigen on which the antibody binds.

- | | |
|-----------------|---------------|
| (i) Active site | (ii) Epitope |
| (iii) Hapten | (iv) Adjuvant |

2.Label the immature macrophage.

- | | |
|-----------------|--------------------|
| (i) Histiocytes | (ii) Microglia |
| (iii) Monocytes | (iv) Kupffer cells |

3.Name the antibody which is present in the Seminal fluid.

- | | |
|-----------|----------|
| (i) IgA | (ii) IgG |
| (iii) IgM | (iv) IgE |

4.Find the cells from which Myeloma cells arise.

- | | |
|--------------------------|-------------------|
| (i) Immature lymphocytes | (ii) Macrophages |
| (iii) Memory cells | (iv) Plasma cells |

5.Name the type of Graft rejection in Human beings.

- | | |
|------------------------------|-----------------------|
| (i) Antibody mediated | (ii) Autoimmunity |
| (iii) Cell mediated immunity | (iv) Hypersensitivity |

SECTION - B (15 Marks)

Answer **ALL** Questions

ALL Questions Carry **EQUAL** Marks (5 x 3 = 15)

6 a.State the Biochemical factors that contribute Innate immunity.

OR

b.Bring out the essential features of Antigens.

7 a.Outline the phenomenon of Phagocytosis.

OR

b.Show the morphology and functions of B-cells

8 a.Compare the types and subclasses of Immunoglobulins.

OR

b.Describe the mechanism of action and functions of Cytotoxic T-cells.

Cont...

- 9 a. Narrate the steps involved in Hybridoma production.

OR

- b. Analyze the principle and applications of RIA.

- 10 a. Describe HLA typing in brief.

OR

- b. Discuss the Immunization schedule for Children.

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a. Describe the structure and functions of Secondary Lymphoid organs.

OR

- b. Discuss briefly on Immunotolerance.

- 12 a. Distinguish the structure and functions of White blood cells.

OR

- b. Elucidate the mode of action of Cytokines.

- 13 a. Analyze the Agglutination reaction in vivo with an example.

OR

- b. Explain in detail about Cell mediated Delayed Hypersensitivity.

- 14 a. Elucidate the types of Complement components and their role.

OR

- b. Discuss the principle and applications of ELISA.

- 15 a. Explain the immunological abnormalities of AIDS.

OR

- b. Compare the causes, symptoms, diagnosis and treatment of Rheumatoid arthritis and Systemic Lupus Erythematosus.

Z-Z-Z

END