

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2022
(Fourth Semester)

Branch – BIOCHEMISTRY

IMMUNOLOGY

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (10 x 1 = 10)

- 1 Basophils, eosinophils and Neutrophils are referred to as
(i) Platelets (ii) Astocytomas
(iii) Granulocytes (iv) Buffers
- 2 Which of the following are not lymphoid cells?
(i) T cells (ii) B cells
(iii) Natural killer cells (iv) Megakaryocytes
- 3 Which of the following antibody directly take part in opsonization process?
(i) IgM (ii) IgG
(iii) IgA (iv) IgE
- 4 Activation of naïve T lymphocytes is best achieved by which antigen presenting cells?
(i) Macrophages (ii) Neutrophils
(iii) Mast cells (iv) Dendritic cells
- 5 Which of the following interleukin is responsible for T cell expansion after antigen recognition?
(i) IL-1 (ii) IL-2 (iii) IL-4 (iv) IL-5
- 6 How many microgram antigen detected in sample by RIA ?
(i) 0.1 µg/ml (ii) 0.0001 µg/ml
(iii) 0.001 µg/ml (iv) 0.01 µg/ml
- 7 An example of type III immune complex disease is:
(i) Contact dermatitis (ii) Graft rejection
(iii) Serum sickness (iv) Atopy.
- 8 Contact with poison ivy would elicit which type of hypersensitivity reaction?
(i) type III (ii) type I (iii) type II (iv) type IV
- 9 Which of the following is an autoimmune disease?
(i) Addison's disease (ii) Syphilis
(iii) Tuberculosis (iv) AIDS
- 10 The transfer of tissue between genetically different individuals of same species is called
(i) autograft (ii) xenograft
(iii) allograft (iv) syngeneic graft

Cont...

SECTION - B (35 Marks)

Answer **ALL** Questions

ALL Questions Carry **EQUAL** Marks (5 x 7 = 35)

- 11 a Exemplify any two experimental animal models used in immunological Study.
- OR**
- b Write a note on null cells and dendritic cells.
- 12 a How do antigen processed and presented ? Explain.
- OR**
- b Evaluate the properties and characteristics of antigen.
- 13 a Describe the types and functions of interleukins.
- OR**
- b Write the principle, method and uses of fluorescence immunoassay.
- 14 a Compare and contrast active and passive immunization.
- OR**
- b Give a brief note on Cell mediated immunity.
- 15 a Explain the mechanism of autoimmunity with an example.
- OR**
- b Demonstrate the destruction of T cells which leads to AIDS.

SECTION - C (30 Marks)

Answer any **THREE** Questions

ALL Questions Carry **EQUAL** Marks (3 x 10 = 30)

- 16 Give an account on the development and differentiation of T and B Cells.
- 17 Illustrate the types and functions of MHC .
- 18 Elaborate on the process and applications of ELISA.
- 19 Describe Type I and Type II Hypersensitivity reactions with its mechanism.
- 20 Explain the method for bone marrow and organ transplantation.

Z-Z-Z

END