

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION DECEMBER 2022
(Second Semester)

Branch – BIOTECHNOLOGY

IMMUNOTECHNOLOGY

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

- 1 Immunity is achieved by introduction of antigen artificially in body is called -----
(i) Active immunity (ii) Artificially induced immunity
(iii) Passive immunity (iv) Auto-immunity
- 2 Monocytes move from the systemic circulatory system into general connective tissues, where they differentiate into ----- phagocytic cell type.
(i) Macrophage (ii) B cell
(iii) T cell (iv) Neutrophil
- 3 CD4 T cells are generally restricted by ____
(i) CD-1 (ii) β 2 microglobulin
(iii) MHC class -I (iv) MHC-class II
- 4 A cytokine that stimulates the activity of B and T cells is ____
(i) Lymphotoxin (ii) Interlukin -1
(iii) Interlukin-2 (iv) All of these
- 5 The first recombinant antigen vaccine approved for human use is -----vaccine.
(i) Hepatitis B (ii) Hib
(iii) Var (iv) DPT

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a Give an account on leucocyte – endothelial interaction.
OR
b Write a note on antigenicity.
- 7 a Discuss in detail the mucosal immunity.
OR
b Summarize the Fcg receptors.
- 8 a Detailed note on ADCC.
OR
b Explain the functions of antigen presenting cells.
- 9 a Summarize the mechanism of graft rejection.
OR
b Explain the biological significance of complement activation.
- 10 a Discuss ELISPOT.
OR
b Describe about recombinant vaccines.

Cont...

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a Explain the difference between cell mediated and humoral immunity.
OR
b Write a note on cell associated pattern recognition receptors.
- 12 a Explain the structure and functions of macrophages and dendritic cells in immune system.
OR
b Summarize the expression of immunoglobulin molecules.
- 13 a Detailed note on MHC antigen in the immune response.
OR
b Describe the T-cell effector mechanisms and functions.
- 14 a Explain the type III hypersensitivity reaction.
OR
b List out the diseases caused due to autoimmunity? Explain any one disease in detail.
- 15 a Give an account on immune detection of agricultural contaminants.
OR
b Explain about production of monoclonal antibodies.

Z-Z-Z

END