22BCP418N

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2025
(Fourth Semester)

Branch - **BIOCHEMISTRY**

IMMUNOLOGY

Time: Three Hours Maximum: 75 Marks

SECTION-A (10 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** marks (10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	When haematopoiesis does occurs? a) During embryonic development b) During tissue formation c) During cells formation d) During adulthood	K1	CO1
	2	Which of the following is included in B Cell Receptor? a) CD24 b) CD59 c) CD79 d) CD16	K2	CO1
2	3	Which of the following types of antigens are NOT involved in carrying out the exogenous pathway of antigens? a) Viral antigens b) Self-antigens c) Bacterial antigens d) Fungal antigens	K1	CO2
	4	Major Histocompatibility Complex is a tight cluster of linked_____ a) Carbohydrates b) Proteins c) Genes d) Lipid molecules	K2	CO2
3	5	_____ cytokines helps in terminating inflammatory responses. a) TGF-beta b) IL-2 c) IL-3 d) INF-alpha	K1	CO3
	6	With which of the following enzyme, labelling of antibodies is carried out in Direct ELISA detection technique? a) Alkaline Phosphatase b) Hyaluronidase c) Lactase d) Amylase	K2	CO3
4	7	_____ is termed as type 1 hypersensitivity. a) Cytotoxic reactions b) Immune complex reaction c) Immediate hypersensitivity d) Cell mediated	K1	CO4
	8	Jenner prepared the vaccine of smallpox by using _____ a) The attenuated pathogen of smallpox b) The killed pathogen of smallpox c) The attenuated pathogen of Cowpox d) Pathogens from Cowpox pustule	K2	CO4
5	9	Which of the following is not an autoimmune disorder? a) Rheumatoid Arthritis b) Multiple sclerosis c) Influenza d) Chronic Hepatitis	K1	CO5
	10	Which cells are transplanted to treat cancer like leukaemia? a) Haematopoietic stem cells b) Red blood cells c) White blood cells d) Epithelial cells	K2	CO5

Cont...

SECTION - B (35 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks (5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
	11.a.	Illustrate the clinical uses of stem cells.	K2	CO1
		(OR)		
	11.b.	Interpret the dendrite cells and leucocyte adhesion molecules.		
2	12.a.	Construct the antigenic determinants on immunoglobulin.	K3	CO2
		(OR)		
	12.b.	Identify the properties and characteristics of epitopes.		
3	13.a.	Develop the Enzyme linked immunosorbent assay.	K3	CO3
		(OR)		
	13.b.	Organize the Immunity in fungal infections.		
4	14.a.	Analyze the immunological tolerance.	K4	CO4
		(OR)		
	14.b.	Examine the whole organism vaccines.		
5	15.a.	Analyze the cancer immunotherapy.	K4	CO5
		(OR)		
	15.b.	Examine the immunologic symptoms of AIDS.		

SECTION -C (30 Marks)

Answer **ANY THREE** questions

ALL questions carry **EQUAL** Marks (3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Analyze the development and differentiation of T cells and B cells.	K4	CO1
2	17	Examine the difference between class I and class II MHC.	K4	CO2
3	18	Explain the properties, structure and functions of cytokines.	K5	CO3
4	19	Assess the type I and type II hypersensitivity.	K5	CO4
5	20	Elaborate the mechanism involved in graft rejection.	K6	CO5

Z-Z-Z END