

MSc DEGREE EXAMINATION MAY 2026
(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	Find the granulocytic cell (i) T Lymphocyte (ii) Monocyte (iii) B Lymphocyte (iv) Neutrophil	K1	CO1
	2	Show the main immunological defect in Nude mice, which lack (i) NK cells (ii) Macrophages (iii) Thymus and T cells (iv) B cells	K2	CO1
2	3	Match the term Epitopes with the following terms (i) Antibodies (ii) Antigenic Determinants (iii) Immunoglobulins (iv) Cytokines	K1	CO2
	4	Relate the molecule that reacts with specific antibody but is not immunogenic by itself (i) Carrier (ii) Immunogen (iii) Antigen (iv) Hapten	K2	CO2
3	5	Name the visible reaction between soluble antigen and antibody forming lattice (i) Agglutination (ii) Neutralization (iii) Precipitation (iv) Opsonization	K1	CO3
	6	Compare the following enzymes which is most commonly used in ELISA technique (i) DNA Polymerase (ii) Horseradish Peroxidase (iii) Hydrolase (iv) Catalase	K2	CO3
4	7	Label the mediator of Type I Hypersensitivity reactions (i) IgE (ii) IgM (iii) IgG (iv) IgD	K1	CO4
	8	Show the one related to subunit vaccines, which contains (i) Whole live bacteria (ii) Only antigenic parts of microorganisms (iii) Live attenuated viruses (iv) Bacterial toxins	K2	CO4
5	9	Which of the following is a systemic autoimmune disease? (i) Type I Diabetic Mellitus (ii) Addison's Disease (iii) Systemic Lupus Erythematosus (iv) Myasthenia Gravis	K1	CO5
	10	Relate the graft that has the highest rate of rejection (i) Autograft (ii) Isograft (iii) Allograft (iv) Xenograft	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
1	11.a.	Show the structure and functions of Granulocytes.	K2	CO1
		(OR)		
	11.b.	Explain the terms Nude mice and Knockout mice.		
2	12.a.	Construct the characteristics of Isotype, Allotype and Idiotypic antigenic determinants.	K3	CO2
		(OR)		
	12.b.	Develop the concepts of Haptens with example and mention its importances.		
3	13.a.	Classify Cytokines and mention its properties & functions.	K4	CO3
		(OR)		
	13.b.	Examine the immunological mechanism against viral infections.		
4	14.a.	Compare Passive immunization with Active immunization.	K5	CO4
		(OR)		
	14.b.	Explain in detail on Primary and Secondary immunodeficiency diseases.		
5	15.a.	Elaborate the mechanism involved in the Graft rejection.	K6	CO4
		(OR)		
	15.b.	Discuss in detail on Cancer Immunotherapy.		

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	Outline the mechanism of Haematopoiesis and its regulation.	K2	CO1
2	17	Construct the MHC Types and write its significances.	K3	CO2
3	18	Examine the principle, technique and applications of ELISA.	K4	CO3
4	19	Evaluate the mechanism and clinical implications of Type II Hypersensitivity reaction.	K5	CO4
5	20	Elaborate the mechanism and immunological symptoms of AIDS.	K6	CO4

Z-Z-Z END