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22BCU413N

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2025
(Fourth Semester)

Branch – **BIOCHEMISTRY**

BASICS OF 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	The bone marrow of which bone is not an active site for hematopoiesis? a) Femur b) Humerus c) Scapula d) Ileum	K1	CO1
	2	Infer the barrier that does not come under innate immunity. a) Physical barrier b) Physiological barrier c) Complex barrier d) Cellular barrier	K2	CO1
2	3	Which are responsible for recruiting immune cells to a specific location within the body? a) Interferons b) Interleukins c) Chemokines d) TNFs	K1	CO2
	4	Show the origin of B-cell? a) Pancreas b) Liver c) Thymus d) Bone marrow	K2	CO2
3	5	Find out the nature of antibodies a) Proteins b) Lipids c) Fats d) Glycoproteins	K1	CO3
	6	Interpret from the following that is NOT a type of agglutination reaction. a) Slide agglutination b) Active agglutination c) Passive agglutination d) Tube agglutination	K2	CO3
4	7	In classical pathway, the head of the C1q interacts with which of the _____ domain of Fc of the antibody. a) CH_1 b) CH_2 c) CH_3 d) Hinge Region	K1	CO4
	8	Predict the following disease that is NOT diagnosed by ELISA? a) Lyme disease b) Rotavirus c) Syphilis d) Flu	K2	CO4
5	9	Which of the following is NOT a type of method of Transplantation? a) Autografting b) Allografting c) Xenografting d) Phenografting	K1	CO5
	10	Infer the following condition that can cause permanent joint damage if left untreated. a) Rheumatoid Arthritis b) Systemic Lupus c) IBD d) Multiple Sclerosis	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.	Illustrate the innate immunity.	K2	CO1
		(OR)		
	11.b.	Interpret the essential features of antigens.		
2	12.a.	Construct the structure and functions of basophils and macrophages.	K3	CO2
		(OR)		
	12.b.	Identify the process of inflammation.		
3	13.a.	Develop the principle and procedure of precipitation.	K3	CO3
		(OR)		
	13.b.	Organize the role of cytotoxic T cells.		
4	14.a.	Analyze the principle and applications of immunoelectrophoresis.	K4	CO4
		(OR)		
	14.b.	Examine the functions of plasma cells and memory cells.		
5	15.a.	Analyze the significance of HLA typing.	K4	CO5
		(OR)		
	15.b.	Examine the rheumatoid arthritis and systemic lupus erythematosus.		

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 structure and functions of primary lymphoid organs.	K4	CO1
2	17	Examine the cytokines and their modes of action.	K4	CO2
3	18	Explain the structure, properties and biological functions of IgG.	K5	CO3
4	19	Assess the principle and applications of ELISA.	K5	CO4
5	20	Elaborate the mechanism of graft rejection.	K6	CO5

Z-Z-Z END