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PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION MAY 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	Where is thymus located? a) Just below the liver b) Just above the liver c) Just below the heart d) Just above the heart	K1	CO1
	2	Innate immunity is also called as _____ a) Specific immunity b) Inborn immunity c) Acquired immunity d) Adapted immunity	K2	CO1
2	3	What is that property of cytokines called where two or more cytokines act together on a single target cell? a) Redundancy b) Synergy c) Antogonism d) Pleiotropy	K1	CO2
	4	Chediak-Higashi syndrome is caused due to deficiency of_____ a) Neutrophils b) Nk cells c) Basophils d) Mast cell	K2	CO2
3	5	Hinge regions provides_____ a) CDRs b) Flexibility c) Solubility process d) Complement proteins	K1	CO3
	6	Which form of agglutination is used in blood typing? a) Particle agglutination b) Hemagglutination c) Latex agglutination d) Tube agglutination	K2	CO3
4	7	C4b2a BAR is called as _____ a) C3 convertase b) C4 convertase c) C2 convertase d) C5 convertase	K1	CO4
	8	Which antibodies are used for ELISA technique? a) Primary antibodies b) Secondary antibodies c) Primary as well as secondary antibodies d) Primary, secondary and tertiary antibodies	K2	CO4
5	9	During stem cell transplantation, what test do the patients undergo? a) Panel reactive antibody test b) Cross-matching c) Serology screening d) Tissue typing	K1	CO5
	10	What is the term used for low levels of thyroid hormone and what does this cause? a) Hypothyroidism; Myasthenia gravis b) Hyperthyroidism; Hashimoto's thyroiditis c) Hypothyroidism; Hashimoto's thyroiditis d) Hyperthyroidism; Myasthenia gravis	K2	CO5

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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 biology of super antigens.	K2	CO1
		(OR)		
	11.b.	Interpret the factors affecting immunogenicity.		
2	12.a.	Construct the structure and functions of neutrophils and eosinophils.	K3	CO2
		(OR)		
	12.b.	Identify the process of phagocytosis.		
3	13.a.	Develop the principle and procedure of agglutination.	K3	CO3
		(OR)		
	13.b.	Organize the consequences of delayed hypersensitivity.		
4	14.a.	Analyze the clonal selection theory.	K4	CO4
		(OR)		
	14.b.	Examine the myelomas and hybridomas.		
5	15.a.	Analyze the resistance to tumors.	K4	CO5
		(OR)		
	15.b.	Examine the big data analytics in immunology.		

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 secondary lymphoid organs.	K4	CO1
2	17	Examine the functions of receptors on the surface of B lymphocytes.	K4	CO2
3	18	Explain the structure, properties and biological functions of IgM.	K5	CO3
4	19	Assess the complement components and their role.	K5	CO4
5	20	Elaborate the pediatric immunization schedule and guidelines.	K6	CO5

Z-Z-Z END