



Department of Genetic Engineering and Biotechnology
Faculty of Health and Life Sciences
B. Sc. (Hons.) in Genetic Engineering and Biotechnology
Midterm Examination Summer 2026

Course Code: 0512-2207
Level and Term: L-2, T-2
Time: 1 Hour 30 minutes

Section: 251 (A+B)

Course Title: Immunology
Course Teacher Initials: DMI & DN.
Total Marks: 2.

Answer the following questions

		Marks
1	(a) Define the immune system and mention its primary function.	[CLO1, PLO2, C1] 2
	(b) Distinguish between innate and adaptive immunity.	[CLO1, PLO2, C3] 3
2	(a) Describe the role of cytokines and chemokines as soluble mediators of the immune system.	[CLO1, PLO1, C5] 3
	(b) What is inflammation? Name the major mediators of inflammation.	[CLO2, PLO1, C4] 2
3	(a) What is antigen? Classify antigen.	[CLO2, PLO1, C2] 2
	(b) Illustrate the difference in how the immune system defends against extracellular pathogens versus intracellular pathogens	[CLO1, PLO2, C2] 3
4	(a) Describe the process of phagocytosis, from chemotaxis to exocytosis	[CLO1, PLO1, C1] 3
	(b) How do Natural Killer (NK) cells recognize and decide to kill a target cell?	[CLO1, PLO2, C6] 2
5	(a) What is Lymphocyte? How B lymphocytes fight against germs in human body.	[CLO2, PLO2, C1] 3
	(b) What are mast cells? Briefly discuss their role in immunity?	[CLO2, PLO2, C6] 2