

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER- V (New) EXAMINATION – WINTER 2019

Subject Code: 2150402

Date: 02/12/2019

Subject Name: Immunology

Time: 10:30 AM TO 01:00 PM

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

		MARKS
Q.1	(a) Compare innate and adaptive immunity.	03
	(b) Write a note on ABO blood group system.	04
	(c) Write down about properties of different classes of antibodies.	07
Q.2	(a) Differentiate between precipitation and agglutination reaction.	03
	(b) Write a note on functioning of white pulp of spleen in immunologic response.	04
	(c) Explain the process of B cell maturation.	07
	OR	
	(c) Explain the process of T Cell maturation.	07
Q.3	(a) Define the terms antigen and immunogen.	03
	(b) Enlist and describe the factors responsible for immunogenicity.	04
	(c) What are endogenous antigens? How are they processed by APCs?	07
	OR	
Q.3	(a) Write down characteristics and basic steps of inflammation.	03
	(b) Explain structure of Class I and Class II MHC.	04
	(c) Explain principle and working of any one variant of ELISA.	07
Q.4	(a) Write a note on Macrophage.	03
	(b) Write a short note on immunoelectrophoresis.	04
	(c) Explain type IV hypersensitivity reaction.	07
	OR	
Q.4	(a) Write a note on neutrophils.	03
	(b) Explain any two molecules that are responsible for immunologic response.	04
	(c) Write a short note on whole organism vaccine.	07
Q.5	(a) What is autoimmunity?	03
	(b) Explain western blotting in brief.	04
	(c) Explain mannose induced pathway of complement system.	07
	OR	
Q.5	(a) What are drawbacks of transplantation technology?	03
	(b) Draw haematopoietic chart.	04
	(c) Explain hybridoma technology for production of Mabs.	07
