

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-V (NEW) EXAMINATION – WINTER 2018

Subject Code:2150402
Date:11/12/2018
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)	What is role of thymus and spleen in immune system?	04
	(c)	Enlist different immune cells and explain working of NK cell in immune response.	07
Q.2	(a)	T cell is said to be MHC restricted. What do you mean by this?	03
	(b)	Compare antigen binding property of Membrane bound Ab, TCR, MHC Class I and MHC Class II.	04
	(c)	Write a note on adjuvant, carrier and hapten molecules.	07
OR			
	(c)	Compare all the classes of immunoglobulins.	07
Q.3	(a)	What are cytokines? What is its role in immune system?	03
	(b)	Compare the terms: endogenous and exogenous antigens, antigen presenting cell and target cell.	04
	(c)	Explain the process of maturation of B cell.	07
OR			
Q.3	(a)	Draw a general diagram illustrating structure of class I and Class II MHC molecules.	03
	(b)	What is positive and negative selection during development process of T cell?	04
	(c)	Explain principle and working of ELISA.	07
Q.4	(a)	What are advantages and disadvantages of using attenuated organisms as vaccines?	03
	(b)	How do three pathways of complement differ in substances that initiate its activation?	04
	(c)	Compare all types of hypersensitive reactions.	07
OR			
Q.4	(a)	Explain characteristics of epitope.	03
	(b)	Write a note on autoimmune diseases.	04
	(c)	Explain Immunologic Basis of Graft Rejection.	07
Q.5	(a)	Draw a neat diagram of haematopoietic chart.	03
	(b)	Write a short note on interferons.	04
	(c)	Explain pathway for processing and presentation of endogenous antigens.	07
OR			
Q.5	(a)	Define the terms antigenicity and immunogenicity.	03

(b)	Explain precipitin curve.	04	
(c)	Explain formation of membrane attack complex via alternative pathway.	07	

www.FirstRanker.com