Seat No.: _____ **Enrolment No._____**

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–V (NEW) - EXAMINATION – SUMMER 2017

Subject Code: 2150402 **Date:27/04/2017**

Subject Name: Immunology

Time:02:30 PM to 05:00 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		**Short Questions**	**14**
	1	How does skin act as first line of defense?	1
	2	What do you mean by specifity of Ag and Ab?	1
	3	What is margination of WBC?	1
	4	Enlist various secondary lymphoid organs.	1
	5	What is epitope?	1
	6	Which Ag and Ab are found in blood of A group person?	1
	7	Which antibody can cross the placenta?	1
	8	Which antibody exists in pentameric form?	1
	9	Write down full form of MHC.	1
	10	What is passive immunization?	1
	11	What is equivalence zone?	1
	12	What is prozone effect?	1
	13	Which organelle helps in phagocytosis?	1
	14	Enlist four attributes of adaptive immunology.	1
Q.2	**(a)**	Explain various antigenic determinants of Ig.	**03**
	(b)	Explain basic characteristics of inflammation.	**04**
	(c)	Explain FACS technique with a neat diagram.	**07**
		OR	
	(c)	Explain RIA with a neat diagram.	**07**
Q.3	**(a)**	Compare precipitation and agglutination techniques.	**03**
	(b)	Write a note on: Immunoflouroscence.	**04**
	(c)	Explain basic structure of Antibody molecule.	**07**
		OR	
Q.3	**(a)**	Explain the process of graft rejection.	**03**
	(b)	Write a note on : Immunoglobulin A.	**04**
	(c)	Explain role of spleen in immune response.	**07**
Q.4	**(a)**	Explain functioning of monocyte and macrophage.	**03**
	(b)	How does foreigness and molecular size affect immunogenecity?	**04**
	(c)	Enlist different biomolecules that play role in immune response and explain any one in detail.	**07**
		OR	
Q.4	**(a)**	Write a note on: epitope.	**03**
	(b)	Write a note on: Natural killer cell.	**04**
	(c)	Explain the process of B cell maturation with a neat diagram.	**07**
Q.5	**(a)**	What is peripheral tolerance?	**03**
	(b)	Write a short note on synthetic peptide vaccine.	**04**
	(c)	Draw a neat chart of haematopoesis.	**07**

OR

Q.5	**(a)**	What is central tolerance?	**03**
	(b)	Compare endogenous and exogenous pathway of Ag processing.	**04**
	(c)	Write a note on purified macromolecule as vaccine.	**07**

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