

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 specificity 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: Immunofluorescence.	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 foreignness and molecular size affect immunogenicity?	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 haematopoiesis.	07

OR

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| 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 |
