

GUJARAT TECHNOLOGICAL UNIVERSITY
BE – SEMESTER – V (NEW) EXAMINATION – WINTER 2015

Subject Code: 2150402**Date: 05/12/2015****Subject Name: Immunology****Time: 10:30am to 1:00pm****Total Marks: 70****Instructions:**

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

- Q.1** (a) Enlist and explain different molecules playing role in immunologic response. **07**
(b) How does inflammation occur? Explain with a neat diagram. **07**

- Q.2** (a) Enlist different cells of immune system. Explain monocytes and macrophage in detail. **07**
(b) Explain the process of B cell maturation with a neat diagram. **07**

OR

- (b) What is function of primary and secondary lymphoid organ in human body? **07**
Explain role of thymus in immune system.

- Q.3** (a) Differentiate between Class I and Class II MHC molecules **07**
(b) Explain cytosolic pathway of antigen processing and presentation. **07**

OR

- Q.3** (a) Explain sandwich ELISA in detail with a neat diagram. **07**
(b) Explain the process for production of monoclonal antibody. **07**

- Q.4** (a) Explain type II hypersensitivity reactions and their remedies. **07**
(b) Explain whole organism vaccine with their advantages and disadvantages. **07**

OR

- Q.4** (a) Draw a neat diagram of antibody molecule showing all its domains. **07**
(b) What are different antigenic determinants on immunoglobulin molecules? **07**

- Q.5** (a) Explain alternative pathway of complement system. **07**
(b) Write a short note on immunotolerance. **07**

OR

- Q.5** (a) Define the term: active immunity, autoimmunity and adaptive immunity **07**
(b) Write a short note on immunofluorescence. **07**
