

GUJARAT TECHNOLOGICAL UNIVERSITY**BE – SEMESTER V • EXAMINATION – WINTER - 2012****Subject code: 150402****Date: 12-01-2013****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.

- Q.1** (a) Explain the steps involved in the production of monoclonal antibody. **10**
(b) What are the different types of grafts? **04**
- Q.2** (a) Write short notes on innate immunity. **07**
(b) What are the different classes of Ig? Explain their biological activity. **07**
- OR**
- (b) What are the factors that influence immunogenicity? **07**
- Q.3** (a) Explain the principle of ELISA. Explain any two types of ELISA. **09**
(b) Explain the mechanism of action in delayed type hypersensitivity. **05**
- OR**
- Q.3** (a) What is the technique used for identification of specific protein in a given mixture of protein? Explain it. **09**
(b) Explain active immunization. **05**
- Q.4** (a) What are the functions of complement? **07**
(b) Plasmid DNA can be used as vaccine. Comment. **07**
- OR**
- Q.4** (a) Explain how complement is activated when antigen-antibody complex is present. **07**
(b) Explain the concept of multivalent subunit vaccine. **07**
- Q.5** (a) With the help of neat diagram explain the life cycle of HIV. **07**
(b) With the help of one example explain IgG mediated hypersensitivity. **07**
- OR**
- Q.5** (a) With the help of neat diagram explain the life cycle of malarial parasite. **07**
(b) Explain Arthus reaction. **07**
