

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-V • EXAMINATION – WINTER • 2014

Subject Code: 150402

Date: 28-11-2014

Subject Name: Immunology

Time: 10.30 am - 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.

- Q.1 (a)** How do physiologic and inflammatory barriers perform their function in non specific host defenses? **07**
- (b)** Differentiate between primary and secondary response and explain it along with graph. **07**
- Q.2 (a)** Differentiate between apoptosis and necrosis. **07**
- (b)** Enlist all the cells of immune system. Classify them into different groups, list out their features and their mode of action. **07**
- OR**
- (b)** Which cells are included in mononuclear phagocytes? What are their salient features? Explain the mechanism of their action against pathogens. **07**
- Q.3 (a)** Draw a neat diagram of secondary lymphoid organ spleen. Explain its role in mounting immune response. **07**
- (b)** Nature of Immunogen contributes to Immunogenicity. Justify this statement with explanation. **07**
- OR**
- Q.3 (a)** Enlist and explain different classes of immunoglobulins with their biological functions. **07**
- (b)** What are haptens? How are they different from adjuvants? How do they respond to our body? **07**
- Q.4 (a)** What are the possible outcomes on interaction of antigen with antibody? **07**
- (b)** What is ELISA? Explain the technique with its variants. **07**
- OR**
- Q.4 (a)** Explain the technique of western blotting with a neat diagram. **07**
- (b)** Write a detailed account on immunofluorescence. **07**
- Q.5 (a)** Explain classical pathway of complement system. **07**
- (b)** Explain any two air borne transmitted diseases. **07**
- OR**
- Q.5 (a)** Explain hybridoma technology for production of monoclonal antibody. **07**
- (b)** Write a short note on multivalent subunit vaccine. **07**
