

**FACULTY OF SCIENCE**  
**M.Sc. II-Semester Examination, May / June 2015**  
**Subject : MICROBIOLOGY**  
**Paper : II**  
**Immunology**

**Time : 3 hours**

**Max. Marks : 80**

**Note : Answer all questions from Part-A and Part-B. Each question carries 4 marks in Part-A and 12 marks in Part-B.**

**PART – A (8 x 4 = 32 Marks)**  
(Short Answer Type)

- 1 ISO antigens
- 2 B cells
- 3 Prophylaxis
- 4 Bacterial Vaccines
- 5 Macrophage Restriction
- 6 Auto immunity
- 7 Neutralization
- 8 Tumor antigens

**PART – B (4 x 12 = 48 Marks)**  
(Essay Answer Type)

- 9 a) What is immune response? Explain T cell interactions.  
**OR**  
b) Describe the structure and function of immunoglobulins and classify them based on the nature of heavy chain.
- 10 a) Explain innate and acquired immunity.  
**OR**  
b) Classify the types of vaccines. Describe the principle and production of DNA vaccines emphasizing on quality assurance and quality control aspects.
- 11 a) Describe the mechanism of inflammation and the consequences associated with it.  
**OR**  
b) Explain body's reaction to infectious agents.
- 12 a) Discuss on labeled antigen and antibody reactions and their application in diagnostic microbiology with examples.  
**OR**  
b) Explain the immuno diagnosis and immuno prophylaxis of cancer.

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