

**B.Sc. IN MEDICAL LABORATORY  
TECHNOLOGY (BSCMLT)****Term-End Examination****December, 2015****BAHI-007 : IMMUNOLOGY***Time : 3 Hours**Maximum Marks : 70*

*Note : The question paper has **three Parts**. **Part A, B and C.**  
Attempt **any three** questions from **Part A.**  
Attempt **all** questions from **Part B and C.***

**PART - A**

Answer **any three** of the following. Each question carries **ten** marks :

1. Classify the various lymphocyte subtypes in the human body. Write briefly on the role of B-cells (B-lymphocyte) in providing immunity. **10**
2. List the types of immunoglobulins. Describe the role of Immunoglobulin E (IgE) in humans. **10**
3. What do you understand by immuno deficiency disorders ? Write a note on the causative agent and laboratory diagnosis of acquired immuno deficiency syndrome (AIDS). **10**
4. Enumerate the types of hypersensitivity reactions giving suitable examples. Differentiate between immediate and delayed hypersensitivity in a tabular form. **10**

## PART - B

5. Write short notes on **any four** of the following : **5x4=20**
- (a) Flocculation tests
  - (b) Polio Vaccines
  - (c) Applications of latex agglutination assays
  - (d) Chemotaxis
  - (e) Immunofluorescence
6. Write briefly on following : **5x2=10**
- (a) Principle of ELISA
  - (b) CD markers of T-cells
  - (c) Definition of auto antibodies
  - (d) Steps of alternative complement pathway
  - (e) Mantoux test - performance and interpretation

## PART - C

7. Write **True** or **False** against the following statements : **1x5=5**
- (a) Contact dermatitis is an example of delayed (type IV) hypersensitivity.
  - (b) Tetanus Toxoid is given orally as vaccine.
  - (c) T-lymphocytes mature in the thymus and regulate cell mediated immunity.
  - (d) Plasma cells produce immunoglobulins.
  - (e) The membrane attack complex is made of complement components  $C_1$  to  $C_4$  ( $C_{1-4}$ ).

8. Fill in the blanks from the choices provided : 1x5=5

- (a) Anti-rabies serum is used for generating \_\_\_\_\_ immunity in patient.
- (i) active
  - (ii) passive
- (b) Incomplete antigens are also known as \_\_\_\_\_.
- (i) haptens
  - (ii) acute phase reactants
- (c) ESR, C-reactive protein and ferritin are examples of \_\_\_\_\_.
- (i) acute phase reactants
  - (ii) tests for viral infections
- (d) Pentameric structure is seen in \_\_\_\_\_ antibodies.
- (i) IgG (Immunoglobulin G)
  - (ii) IgM (Immunoglobulin M)
- (e) Rose Waaler Test has been used for detecting \_\_\_\_\_.
- (i) Rheumatoid factor
  - (ii) Dengue antigen
- \_\_\_\_\_