

**B.Sc. IN MEDICAL LABORATORY  
TECHNOLOGY (BMLT)**

**Term-End Examination**

**June, 2013**

**BAHI-011 : APPLIED SEROLOGY, IMMUNOLOGY  
AND MICROBIOLOGY**

*Time : 3 hours*

*Maximum Marks : 70*

*Note : Answer questions in PART A and PART B according to  
instructions in each PART.*

**PART - A**

*Answer any five questions.*

**5x8=40**

1. Define Immunity. Classify Immunity and give examples. Discuss in detail Active immunity and its role in medical treatment. **1+3+4**
2. Define Antibody. List the classes of antibodies. Discuss in detail the structure and function of Immunoglobulin M. **1+2+5**
3. Define Hypersensitivity. Classify it, giving examples. Explain in detail Delayed Type Hypersensitivity. **2+2+4**
4. What is ELISA ? What is its principle ? What are various types of ELISA mention their uses ? **1+2+5**

5. What is the principle of the Polymerase Chain Reaction (PCR) ? Write procedure of PCR giving important steps. Enumerate applications in diagnostic microbiology. 3+1+4
6. Name the areas in microbiology where AUTOMATION has been successfully introduced. Discuss Blood Culture automation systems. 2+6
7. In a school hostel, ten boys suddenly developed diarrhoea and vomiting. The school doctor suspects water borne infection. Write causes and importance of water borne infections. 1+7

## PART-B

8. Write short notes on *any five* : 5x6=30

- (a)  $\beta$  lymphocytes
  - (b) Counter Immuno Electrophoresis (CIEOP)
  - (c) Nosocomial Infection (Hospital Acquired infections)
  - (d) Immunoglobulin E
  - (e) HLA systems in man
  - (f) Mechanisms of Auto immunity
  - (g) Anaphylaxis.
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