B.Sc IN MEDICAL LABORATORY TCHNOLOGY (BMLT)

Term-End Examination December, 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:

- 1. Define HLA system. Describe Major Human Histo-compatibility Complex (MHC) giving its significance. Mention HLA and Disease association. 2+3+3=8
- 2. What are immunoglobulins? Describe structure and functions of immunoglobulins. 2+3+3=8
- Define antigen and antibody reactions. Describe its role in diagnostic Laboratories.
 2+3+3=8
- 4. Define autoimmunity. Describe formation of autoantigen and autoantibody in various auto-immune disorders. 2+3+3=8
- Discribe the basic principle, performance, and uses of Flow Cell Cytometry (FCC). Indicate limitations of FCC.

- 6. Define immunodiffusion. Describe various techniques of immunodiffusion and its applications in diagnostic microbiology. 2+3+3=8
- 7. Define hypersensitivity. Describe Coomb's and Gel classification of hypersensitivity types. Indicate its significance. 2+3+3=8

PART-B

- 8. Write short notes on any five of the following:
 - (a) Active immunity

5x6 = 30

- (b) Immuno flurescence assay (IFA)
- (c) Immune responses
- (d) T-Cell activation and interactions
- (e) Immuno-electrophoresis (IEP)
- (f) Immune paralysis
- (g) Bacteriological examination of water