

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

**Term-End Examination**

**December, 2013**

**BAHI-010 : APPLIED HEMATOLOGY**

*Time : 3 hours*

*Maximum Marks : 70*

**PART-A**

Answer **any four** questions. Each. Question carries **10** marks. **4x10=40**

1. What is acute leukemia. Classify acute leukemia. Enumerate special stains used to differentiate these leukemia.
2. What are principles of automation in coagulation techniques giving one example for each technique. Discuss the factors that must be taken into consideration when a laboratory decides to use automation in coagulation.
3. Name techniques used to separate haemoglobins and their principle.

Interpret the following result, obtained during haemoglobin analysis.

	HbA <sub>2</sub>	HbA	HbF	Others	Diagnosis
(a)	6.2%	84%	1.0%	___	___
(b)	2.2%	___	80%	___	___
(c)	2.9%	92%	0.9%	___	___
(d)	2.1%	50%	1.0%	Hbs 45%	___

4. What is meant by haemoglobinopathy ? Name common abnormal haemoglobins found in India. Describe the peripheral blood film in sickle cell anaemia.
  
5. What are the common sites of bone marrow aspiration? Name and describe the use of various types of bone marrow needles. What is bone marrow trephine biopsy? Write indications for the trephine biopsy.

### **PART-B**

6. Write short notes on **any six** of the following. Each short note carries **5** marks. **6x5=30**
    - (a) Prothrombin time test/INR
    - (b) L.E cell
    - (c) HLA typing
    - (d) Leukocyte alkaline phosphatase staining.
    - (e) Haemosiderine in urine
    - (f) Osmotic fragility test
    - (g) Factor deficient plasma
    - (h) Thalassemia minor.
-