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

Term-End Examination

June, 2015

BAHI-010 : APPLIED HEMATOLOGY

Time : 3 hours

Maximum Marks : 70

Note : Follow instructions in each part of questions.

PART - A

Answer **any five** of the following :

8x5=40

1. Define Human Leukocyte Antigen (HLA). Write in brief techniques of HLA typing.
2. What is buffy coat ? How is L.E. cell phenomenon demonstrated. Differentiate L.E. cell from Tart cell.
3. What are nomenclatures for blood coagulation factors ? Describe theories of coagulation.
4. Describe in brief the following simple basic laboratory techniques :
 - (a) Hess' capillary resistance test.
 - (b) Bleeding (Duke method) time.
 - (c) Clot retraction time.
 - (d) Coagulation time (Lee and white)

5. Describe principle and procedure of Alkali denaturation method for estimation of haemoglobin - F (HbF).
6. What are cytochemical stains ? Give clinical significance of usage of these stains in haematology.
7. Enumerate factors affecting in vitro demonstration of sickle-cells. Write principle, procedure of sickling Phenomenon.
8. Enumerate abnormal Hb synthesis. Describe in brief tests performed in detection of beta thalassemia.

PART - B

9. Write short notes on any five of the following :
 - (a) Preparation and staining of bone marrow smears. **6x5=30**
 - (b) Significance of abnormal bone marrow constituents.
 - (c) Immuno diagnostic techniques in haematology.
 - (d) Estimation of Hb - A₂.
 - (e) Cellulose acetate electrophoresis.
 - (f) Osmotic fragility.
 - (g) Principle and procedure of Sudan - black staining in bone marrow smears.
 - (h) PAS stain.
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