

**MANIPAL UNIVERSITY****SECOND YEAR B.Sc. M.L.T. DEGREE EXAMINATION – JUNE 2011****SUBJECT: CLINICAL BIOCHEMISTRY**

Monday, June 06, 2011

Time: 14:00-17:00 Hrs.

Max. Marks: 80

**✍ Answer all Questions. Draw diagrams wherever necessary.**

- 1A. Define and classify lipids. Briefly explain the transport, biochemical functions and clinical significance of plasma cholesterol.
- 1B. Name three important biochemical factors involved in RBC synthesis. Discuss about any two of them.
- 1C. Write various sources of glucose in blood. Describe the mechanism of blood glucose regulation.

(10×3 = 30 marks)

**2. Write detailed notes on:**

- 2A. Jaundice.
- 2B. Bence Jones proteins.
- 2C. Immunoglobulin.
- 2D. Transaminases.
- 2E. Thyroid hormones.

(6×5 = 30 marks)

**3. Write short notes on:**

- 3A. Wilson's disease.
- 3B. Salting out.
- 3C. Atherosclerosis.
- 3D. Alfa feto proteins.
- 3E. Insulin.

(4×5 = 20 marks)



**MANIPAL UNIVERSITY**  
**SECOND YEAR B.Sc. M.L.T. DEGREE EXAMINATION – JUNE 2011**  
**SUBJECT: HAEMATOLOGY AND CLINICAL PATHOLOGY**

Wednesday, June 08, 2011

Time: 14:00-17:00 Hrs.

Max. Marks: 80

✍ **Answer all Questions. Draw diagrams wherever necessary.**

- 1A. Discuss the structure of normal hemoglobin and abnormal hemoglobin derivatives. Add a note on their detection.
- 1B. Discuss on the constituents of blood with a short note on hematopoiesis.
- 1C. Discuss principle, procedure, normal values and clinical significance of ESR.

(10×3 = 30 marks)

**2. Write detailed notes on:**

- 2A. AML
- 2B. Physical examination of urine.
- 2C. MPO
- 2D. Thalassemia
- 2E. Bleeding time

(6×5 = 30 marks)

**3. Write short notes on:**

- 3A. Sickling test
- 3B. Absolute eosinophil count
- 3C. Hay's test
- 3D. Clot retraction
- 3E. Anisocytosis

(4×5 = 20 marks)



**MANIPAL UNIVERSITY**  
**SECOND YEAR B.Sc. M.L.T. DEGREE EXAMINATION – JUNE 2011**  
**SUBJECT: IMMUNOHAEMATOLOGY**

Friday, June 10, 2011

Time: 14:00-15.30 Hrs.

Max. Marks: 40

✍ **Answer ALL the questions.**

1. Mention the blood group systems other than ABO and Rh and explain any three.

(10 marks)

2. **Write short notes on:**

2A. Fresh frozen plasma.

2B. Cross matching.

2C. Hepatitis – B.

2D. Pre transfusion testing and issue of blood.

2E. CDE nomenclature.

(6×5 = 30 marks)

